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| 160268 | ATU022<br>208 | ATL8C3<br>0799:1<br>047..1 | gap2 | ATCEA4<br>S1592  | 86 | ATL8C3<br>0799:9<br>44..16 | 0.47 | g22449<br>70 | 53 | 1487 | 1.9e-<br>156 | INOGEN<br>III<br>OXIDAS<br>E<br>PRECUR<br>SOR<br>(COPRO<br>PORPHY<br>RINOGE<br>NASE)<br>(COPRO<br>GEN<br>OXIDAS<br>E)<br>[Nicot<br>iana<br>tabacu<br>m] |
| 160269 | ATU022<br>209 | ATL8S2<br>0119:1<br>..582  | gap2 | ATCEA4<br>S34743 | 86 | ATL8S2<br>0119:2<br>4..455 | 0.89 | g29842<br>25 | 52 | 200  | 2.7e-<br>20  | (AE000<br>766)<br>enolas<br>e-<br>phosph<br>atase<br>E-1<br>[Aquif<br>ex<br>aeolic<br>us]   |
| 160270 | ATU022        | ATL8S1                     | gap2 | ATCEA4           | 86 | ATL8S1                     | 0.79 | g45859       | 52 | 524  | 2.5e-        | (AC005  |



| 210    | 101:1.<br>.571 |                            | S5821 |                        | 101:81<br>..538 | 97                               |      |              |    | 55   | 287)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
|--------|----------------|----------------------------|-------|------------------------|-----------------|----------------------------------|------|--------------|----|------|--|--|
| 160271 | ATU022<br>211  | ATL8C4<br>7549:1<br>..1535 | gap2  | ATCEA4<br>C23892<br>_1 | 86              | ATL8C4<br>7549:2<br>36..14<br>37 | 0.61 | g31579<br>26 | 52 | 1678 | 1.8e-<br>103   | (AC002<br>131)<br>Strong<br>simila<br>rity<br>to<br>extens<br>in-<br>like<br>protei<br>n<br>gb Z34<br>465<br>from<br>Zea<br>mays.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160272 | ATU022<br>212  | ATL8C1<br>119:16<br>75..1  | gap2  | ATCEA4<br>S126         | 86              | ATL8C1<br>119:10<br>09..16<br>0  | 0.46 | g33778<br>16 | 52 | 369  | 6.9e-<br>43  | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na  |

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| 160273 | ATU022<br>213 | ATL8C3<br>8028:4<br>844..1<br>423 | gap2 | ATCEA4<br>S11406 | 86 | ATL8C3<br>8028:4<br>341..1<br>423 | 0.43 | g42636<br>44,<br>g47739<br>10 | 52, 33 | 546,<br>132 | 9.6e-<br>30,<br>3.9e-<br>08 | retrotransposon<br>Athila<br>(GB:X8<br>1801)<br>[Arabidopsis<br>thaliana] |
| 160274 | ATU022<br>214 | ATL8C1<br>2183:3<br>80..11<br>87  | gap2 | ATCEA4<br>S30961 | 86 |                                   |      | g21296<br>36                  | 52     | 907         | 1.1e-<br>84                 | lipase<br>-<br>Arabidopsis<br>thaliana<br>[Arabidopsis<br>thaliana]       |

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| 160275 | ATU022<br>215 | ATL8C1<br>6:756.<br>.1            | gap2 | ATCEA4<br>C8643_1 | 86 | ATL8C1<br>6:756.<br>.23           | 0.98 | g12980<br>9  | 51 | 709  | 3.6e-<br>76  | dopsis<br>thalia<br>na]   |
| 160276 | ATU022<br>216 | ATL8C4<br>6132:3<br>633..2<br>423 | gap2 | ATCEA4<br>S11082  | 86 | ATL8C4<br>6132:3<br>610..2<br>423 | 0.92 | g30470<br>73 | 51 | 1156 | 1.2e-<br>114 | (AF058<br>825)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrot<br>ranspo<br>son-<br>like<br>protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160277 | ATU022<br>217 | ATL8C4<br>334:83<br>8..1          | gap2 | ATCEA4<br>S8141   | 86 | ATL8C4<br>334:69<br>9..26         | 0.59 | g45593<br>54 | 50 | 1514 | 3.0e-<br>07  | (AC006<br>585)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 160278 | ATU022        | ATL8C2                            | gap2 | ATCEA4            | 86 | ATL8C2                            | 0.45 | g44552       | 50 | 404  | 1.1e-        | (AL035  |

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| 218    | 5406:6<br>53..1 |                                  | S34635 |  | 5406:5<br>26..28 | 03                                |              |    |      | 32           | 440)<br>putative<br>protein<br>[Arabi<br>dopsis<br>thaliana]                              |
| 160279 | ATU022<br>219   | ATL8S1<br>4226:2<br>45..51<br>0  | gap2   | ATCEA4<br>C34816<br>_1                         | 86               |                                   | g35401<br>93 | 50 | 182  | 1.3e-<br>15  | (AC004<br>122)<br>Unknown<br>protein<br>[Arabi<br>dopsis<br>thaliana]                     |
| 160280 | ATU022<br>220   | ATL8C3<br>5030:4<br>127..1       | gap2   | ATCEA4<br>C33365<br>_1                         | 86               | ATL8C3<br>5030:3<br>690..1<br>34  | g35496<br>52 | 49 | 2742 | 4.9e-<br>232 | (AJ224<br>982)<br>MAP3K<br>epsilone<br>protein<br>kinase<br>[Arabi<br>dopsis<br>thaliana] |
| 160281 | ATU022<br>221   | ATL8C4<br>3793:7<br>56..15<br>08 | gap2   | ATCEA4<br>S31244<br>,<br>ATCEA4<br>C2100<br>_1 | 86, 85           | ATL8C4<br>3793:1<br>026..1<br>349 | g22643<br>80 | 49 | 707  |              | (AC002<br>354)<br>NAD+<br>dependent<br>isocitrate<br>dehydrogenase                        |

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| 160282 | ATU022<br>222 | ATL8C3<br>185:41<br>47..55<br>74 | gap2 | ATCEA4<br>C43490<br>_1                    | 86     | ATL8C3<br>185:44<br>24..55<br>45 | 0.74 | g39534<br>66 | 48 | 1173 | 1.5e-<br>90 | (AC002<br>328)<br>F20N2.<br>11<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 160283 | ATU022<br>223 | ATL8C3<br>1165:5<br>91..1        | gap2 | ATCEA4<br>C732_3<br>,<br>ATCEA4<br>S32073 | 86, 83 | ATL8C3<br>1165:2<br>79..18<br>5  | 0.53 | g27393<br>65 | 48 | 368  | 1.9e-<br>31 | (AC002<br>505)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 160284 | ATU022<br>224 | ATL8C3<br>9971:1<br>222..5<br>41 | gap2 | ATCEA4<br>C30405<br>_1                    | 86     | ATL8C3<br>9971:9<br>80..69<br>4  | 0.96 | g21296<br>03 | 47 | 73   | 0.62        | glycin<br>e/prol<br>ine-<br>rich<br>protei<br>n -<br>Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160285 | ATU022        | ATL8C4                           | gap2 | ATCEA4                                    | 86     | ATL8C4                           | 0.94 | g37383       | 47 | 503  | 6.4e-       | (AC005)   |



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| 160289 | ATU022<br>229 | ATL8C1<br>6431:2<br>215..1      | gap2 | ATCEA4<br>S4078        | 86     | ATL8C1<br>6431:2<br>162..3<br>9 | 0.47 | g45859<br>27 | 43 | 390 | 1.0e-<br>32 | (AC007<br>211)<br>putati<br>ve<br>cyclin<br>G-<br>associ<br>ated<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160290 | ATU022<br>230 | ATL8C3<br>5632:3<br>58..76<br>8 | gap2 | ATCEA4<br>S5982        | 86     | ATL8C3<br>5632:4<br>73..76<br>2 | 0.66 | g44552<br>26 | 42 | 320 | 5.0e-<br>30 | (AL035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 160291 | ATU022<br>231 | ATL8C2<br>1174:1<br>..419       | gap2 | ATCEA4<br>C13856<br>_1 | 86     | ATL8C2<br>1174:1<br>43..25<br>7 | 0.42 | g37860<br>08 | 42 | 100 | 2.5e-<br>07 | (AC005<br>499)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 160292 | ATU022<br>232 | ATL8C4<br>065:10                | gap2 | ATCEA4<br>S2599,       | 86, 84 | ATL8C4<br>065:97                | 0.95 | g45875<br>13 | 41 | 309 | 1.4e-<br>36 | (AC007<br>060)  |

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| 160293 | ATU022<br>233 | 56..1                            | ATCEA4<br>S34044 |    | 4..38                            | 0.92 | g12135<br>36 | 41 | 814  | 4.9e-<br>81 | (U5019<br>3) the<br>above<br>GenBan<br>k<br>entry<br>begins<br>at aa<br>120<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] |
| 160294 | ATU022<br>234 | ATL8C4<br>2055:6<br>32..19<br>51 | ATCEA4<br>S1996  | 86 | ATL8C4<br>2055:6<br>32..19<br>33 | 0.57 | g39804<br>11 | 41 | 1620 | 2.7e-<br>76 | (AC004<br>561)<br>putati<br>ve<br>prolin<br>e-rich<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |



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| 160295 | ATU022<br>235 | ATL8S2<br>4789:3<br>95..1  | gap2 | ATCEA4<br>C16352<br>_1                  | 86     |                                   |  |  |  | g45875<br>85 | 41 | 195  | 1.9e-<br>19  | (AC007<br>232)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160296 | ATU022<br>236 | ATL8C3<br>0834:5<br>11..1  | gap2 | ATCEA4<br>C7115_1,<br>ATCEA4<br>C7115_2 | 86, 86 |                                   |  |  |  | g45875<br>32 | 40 | 471  | 1.8e-<br>37  | (AC007<br>060)<br>Strong<br>simila<br>rity<br>to<br>F19I3.<br>2 [ ]                    |
| 160297 | ATU022<br>237 | ATL8C1<br>822:90<br>0..1   | gap2 | ATCEA4<br>S9427                         | 86     | ATL8C1<br>822:75<br>1..557        |  |  |  | g38591<br>16 | 39 | 174  | 5.3e-<br>14  | (AF031<br>609)<br>unknow<br>n<br>[Oryza<br>sativa<br>]                                 |
| 160298 | ATU022<br>238 | ATL8C2<br>5586:1<br>..1417 | gap2 | ATCEA4<br>S11889                        | 86     | ATL8C2<br>5586:1<br>41..13<br>28  |  |  |  | g36680<br>89 | 39 | 1295 | 2.1e-<br>125 | (AC004<br>667)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 160299 | ATU022<br>239 | ATL8C1<br>7450:1<br>474..1 | gap2 | ATCEA4<br>S3937                         | 86     | ATL8C1<br>7450:1<br>407..1<br>154 |  |  |  | g47739<br>10 | 39 | 218  | 8.2e-<br>22  | (AF147<br>259)<br>No<br>defini<br>tion   |

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| 160300 | ATU022<br>240 | ATL8C9<br>622:77<br>1..118<br>4   | gap2 | ATCEA4<br>S8361  | 86     |        |      |  |  |  | g17699<br>07 | 39 | 321 | 1.3e-<br>22 | (X9297<br>5)<br>xylogl<br>ucan<br>endo-<br>transg<br>lycosy<br>lase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160301 | ATU022<br>241 | ATL8C1<br>2792:1<br>..723         | gap2 | ATCEA4<br>S34006 | 86     |        |      |  |  |  | g33373<br>67 | 39 | 216 | 7.1e-<br>11 | (AC004<br>481)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 160302 | ATU022<br>242 | ATL8C2<br>0746:7<br>113..7<br>950 | gap2 | ATCEA4<br>S3937  | 86     |        |      |  |  |  | g47739<br>10 | 38 | 287 | 1.9e-<br>19 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 160303 | ATU022        | ATL8C3                            | gap2 | ATCEA4           | 86, 82 | ATL8C3 | 0.50 |  |  |  | g42638       | 37 | 278 | 5.8e-       | (AC006)  |

| 243    | 3319:6<br>547..3<br>866 | S3937,<br>ATCEA4<br>S11406 | 86     | ATL8C4<br>6069:1<br>977..1 | gap2 | ATCEA4<br>S328                            | 3319:6<br>011..4<br>346          | 0.94 | g42635<br>23 | 36 | 908 | 6.4e-<br>53 | 20 | 067)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
|--------|-------------------------|----------------------------|--------|----------------------------|------|---|----------------------------------|------|--------------|----|-----|-------------|----|---|
| 160304 | ATU022<br>244           |                            |        |                            |      |   | ATL8C4<br>6069:1<br>977..3<br>21 |      |              |    |     |             |    | (AC004<br>044)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 160305 | ATU022<br>245           |                            | 86, 85 | ATL8C9<br>920:73<br>8..1   | gap2 | ATCEA4<br>C18271<br>1,<br>ATCEA4<br>S2096 | ATL8C9<br>920:73<br>8..363       | 0.72 | g31691<br>71 | 36 | 466 | 1.5e-<br>27 |    | (AC004<br>401)<br>putati<br>ve<br>serine<br>carbox<br>ypepti<br>dase I<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160306 | ATU022<br>246           |                            | 86     | ATL8C1<br>7535:1<br>..1436 | gap2 | ATCEA4<br>C49551<br>_1                    | ATL8C1<br>7535:7<br>1..140<br>6  | 0.50 | g13514<br>38 | 36 | 831 | 7.0e-<br>77 |    | XANTHI<br>NE<br>DEHYDR<br>OGENAS<br>E (XD)<br>(CONTA<br>INS:<br>XANTHI<br>NE                                |

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| 160307 | ATU022<br>247 | ATL8C9<br>500:24<br>13..1 | gap2 | ATCEA4<br>C48854<br>_1                     | 86     |  |  |  |  | g18711<br>88 | 35 | 82  | 0.050       | (U9043<br>9)<br>zinc<br>finger<br>protei<br>n 8,<br>ZFP8<br>[Arabi<br>dopsis<br>thalia<br>nal]                                       | OXIDAS<br>E<br>(XO))<br>[Gallu<br>s<br>gallus<br>] |
| 160308 | ATU022<br>248 | ATL8S2<br>580:1.<br>.434  | gap2 | ATCEA4<br>S5518,<br>ATCEA4<br>C33980<br>_1 | 86, 82 |  |  |  |  | g28299<br>25 | 34 | 339 | 6.0e-<br>36 | (AC002<br>291)<br>Simila<br>r to<br>dnaj-<br>like<br>protei<br>n,<br>gp Y11<br>969 22<br>30757<br>[Arabi<br>dopsis<br>thalia<br>nal] |  |
| 160309 | ATU022<br>249 | ATL8C3<br>1832:1<br>..552 | gap2 | ATCEA4<br>S31801                           | 86     |  |  |  |  | g30803<br>75 | 34 | 763 | 2.2e-<br>61 | (AL022<br>580)<br>putati<br>ve<br>protei<br>n<br>[Arabi  |  |

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| 160310 | ATU022<br>250 | ATL8C1<br>5124:1<br>194..1      | gap2 | ATCEA4<br>S14124<br>,<br>ATCEA4<br>C369_1 | 86, 84 | ATL8C1<br>5124:8<br>50..14<br>3 | 0.92 | g25117<br>15 | 33 | 1025 | 2.1e-<br>108 | dopsis<br>thalia<br>na]<br>(AF019<br>380)<br>putati<br>ve<br>phosph<br>atidyl<br>inosit<br>ol-4-<br>phosph<br>ate 5-<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160311 | ATU022<br>251 | ATL8C3<br>0503:4<br>10..82<br>8 | gap2 | ATCEA4<br>S5920                           | 86     | ATL8C3<br>0503:5<br>22..77<br>4 | 0.72 | g22621<br>62 | 33 | 289  | 2.3e-<br>27  | (AC002<br>329)<br>hypo<br>thetical<br>protein<br>n<br>simila<br>r to<br>A.<br>thalia<br>na<br>protei<br>n<br>F19K23<br>.19<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 160312 | ATU022<br>252 | ATL8C7<br>99:908<br>..1996      | gap2 | ATCEA4<br>S11082                          | 86     |                                 |      | g46894<br>52 | 33 | 93   | 0.013        | (AC006<br>267)<br>putati  |

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| 160313 | ATU022<br>253 | ATL8C3<br>8059:2<br>003..9<br>11  | gap2 | ATCEA4<br>C4238_1 | 86 |                                  |      |  |  |  | g41917<br>89 | 33 | 446 | 1.4e-<br>24 | (AC005<br>917)<br>putati<br>ve<br>transm<br>embran<br>e<br>transp<br>ort<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160314 | ATU022<br>254 | ATL8C2<br>4182:2<br>576..3<br>610 | gap2 | ATCEA4<br>S32387  | 86 |                                  |      |  |  |  | g46626<br>44 | 32 | 774 | 5.1e-<br>52 | (AC006<br>429)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 160315 | ATU022<br>255 | ATL8C4<br>6107:7<br>72..27<br>66  | gap2 | ATCEA4<br>S203    | 86 | ATL8C4<br>6107:7<br>72..25<br>53 | 0.84 |  |  |  | g42635<br>45 | 31 | 580 | 3.3e-<br>35 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro  |

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| 160316 | ATU022<br>256 | ATL8C1<br>4506:1<br>..1605 | gap2 | ATCEA4<br>S1306  | 86 | ATL8C1<br>4506:2<br>82..16<br>05 | 0.54 | g23153<br>62 | 31 | 441 | 1.0e-<br>41 | lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AF016<br>441)<br>contai<br>ns<br>simila<br>rity<br>to<br>multip<br>le TPR<br>domain<br>s<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] |
| 160317 | ATU022<br>257 | ATL8C2<br>627:1.<br>.596   | gap2 | ATCEA4<br>S12001 | 86 | ATL8C2<br>627:14<br>5..596       | 0.65 | g32490<br>76 | 30 | 538 | 6.6e-<br>52 | (AC004<br>473)<br>Simila<br>r to<br>beta<br>glucos<br>idase<br>(bg1A)<br>gbIX94<br>986<br>from<br>Maniho<br>t<br>escule<br>nta.<br>[Arabi   |

|        |               |                           |      |                         |    |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------|------|-------------------------|----|---------------------------------|------|--------------|----|-----|-------------|---|
| 160318 | ATU022<br>258 | ATL8C2<br>0822:9<br>28..1 | gap2 | ATCEA4<br>C18612<br>_1  | 86 | ATL8C2<br>0822:8<br>47..69      | 0.50 | g38343<br>02 | 30 | 829 | 8.9e-<br>58 | dopsis<br>thalia<br>na]<br>(AC005<br>679)<br>Simila<br>r to<br>gb D45<br>384<br>vacuol<br>ar H+-<br>pyroph<br>osphat<br>ase.<br>from<br>Oryza<br>sativa<br>ESTs<br>gb F14<br>272<br>and<br>gb F14<br>273<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL035<br>678)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis |
| 160319 | ATU022<br>259 | ATL8C3<br>0790:8<br>23..1 | gap2 | ATCEA4<br>C14633<br>1_1 | 86 | ATL8C3<br>0790:7<br>22..16<br>0 | 0.40 | g44902<br>97 | 30 | 881 | 3.6e-<br>91 | (AL035<br>678)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis   |



|        |               |                                  |      |   |               |  |  |                                  |      |              |     |      |              |   |
|--------|---------------|----------------------------------|------|---|---------------|--|--|----------------------------------|------|--------------|-----|------|--------------|---|
| 160320 | ATU022<br>260 | ATL8S3<br>0462:5<br>62..1        | gap2 | ATCEA4<br>C77430<br>_1                              | 86            |  |  |                                  |      | g30212<br>75 | 30  | 231  | 8.3e-<br>24  | thalia<br>na]<br>(AL022<br>347)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160321 | ATU022<br>261 | ATL8C4<br>802:23<br>84..12<br>18 | gap2 | ATCEA4<br>S30848                                    | 85            |  |  | ATL8C4<br>802:23<br>45..12<br>18 | 1.00 | g14832<br>18 | 100 | 1793 | 2.0e-<br>177 | (X9979<br>3)<br>induce<br>d upon<br>woundi<br>ng<br>stress<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 160322 | ATU022<br>262 | ATL8S3<br>187:42<br>3..128       | gap2 | ATCEA4<br>C28984<br>1                               | 86            |  |  | ATL8S3<br>187:41<br>9..128       | 0.99 |              |     |      |              |   |
| 160323 | ATU022<br>263 | ATL8C1<br>0256:1<br>..853        | gap2 | ATCEA4<br>C30157<br>_1                              | 86            |  |  | ATL8C1<br>0256:1<br>42..85<br>3  | 0.98 |              |     |      |              |   |
| 160324 | ATU022<br>264 | ATL8C1<br>3222:4<br>70..12<br>42 | gap2 | ATCEA4<br>S21058                                    | 86            |  |  | ATL8C1<br>3222:4<br>70..11<br>28 | 0.95 |              |     |      |              |   |
| 160325 | ATU022<br>265 | ATL8C4<br>7781:1<br>..1166       | gap2 | ATCEA4<br>S33279<br>,<br>ATCEA4<br>S5167,<br>ATCEA4 | 86,<br>85, 85 |  |  | ATL8C4<br>7781:1<br>23..11<br>59 | 0.95 |              |     |      |              |   |



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|--------|---------------|-----------------------------------|------|---|--------|-----------------------------------|------|--|--|--|--|--|--|
| 160334 | ATU022<br>274 | ATL8C3<br>8073:7<br>70..1         | gap2 | ATCEA4<br>S3227,<br>ATCEA4<br>S12911      | 86, 85 | ATL8C3<br>8073:7<br>70..68        | 0.91 |  |  |  |  |  | g<br>protei<br>n from<br>Brassi<br>ca<br>napus.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160335 | ATU022<br>275 | ATL8S7<br>091:54<br>9..1          | gap2 | ATCEA4<br>C1044<br>5                      | 86     | ATL8S7<br>091:35<br>0..196        | 0.91 |  |  |  |  |  |  |
| 160336 | ATU022<br>276 | ATL8S3<br>30:1..<br>220           | gap2 | ATCEA4<br>C33330<br>1                     | 86     | ATL8S3<br>30:84.<br>.215          | 0.90 |  |  |  |  |  |  |
| 160337 | ATU022<br>277 | ATL8S2<br>4976:5<br>55..38<br>9   | gap2 | ATCEA4<br>S3808                           | 86     | ATL8S2<br>4976:5<br>06..39<br>8   | 0.89 |  |  |  |  |  |  |
| 160338 | ATU022<br>278 | ATL8C1<br>5745:2<br>..1021        | gap2 | ATCEA4<br>S35283                          | 86     | ATL8C1<br>5745:2<br>..870         | 0.88 |  |  |  |  |  |  |
| 160339 | ATU022<br>279 | ATL8C1<br>6791:3<br>743..1<br>516 | gap2 | ATCEA4<br>S17879<br>,<br>ATCEA4<br>S26288 | 86, 82 | ATL8C1<br>6791:3<br>743..1<br>516 | 0.88 |  |  |  |  |  |  |
| 160340 | ATU022<br>280 | ATL8C3<br>6891:1<br>314..5<br>10  | gap2 | ATCEA4<br>S33441                          | 86     | ATL8C3<br>6891:1<br>314..6<br>53  | 0.87 |  |  |  |  |  |  |
| 160341 | ATU022<br>281 | ATL8C1<br>988:16<br>40..1         | gap2 | ATCEA4<br>S23327                          | 86     | ATL8C1<br>988:16<br>40..31<br>0   | 0.87 |  |  |  |  |  |  |

6017



|        |               |                                  |      |                        |        |                                  |      |  |  |  |  |  |  |  |  |  |  |   |
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| 160355 | ATU022<br>295 | ATL8C1<br>5657:5<br>65..38       | gap2 | ATCEA4<br>S1989        | 86     | ATL8C1<br>5657:5<br>65..38       | 0.82 |  |  |  |  |  |  |  |  |  |  | A.<br>thalia<br>na<br>cDNA<br>H37158<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160356 | ATU022<br>296 | ATL8S3<br>7:260.<br>.616         | gap2 | ATCEA4<br>C11950<br>11 | 86     | ATL8S3<br>7:392.<br>.545         | 0.81 |  |  |  |  |  |  |  |  |  |  |   |
| 160357 | ATU022<br>297 | ATL8C4<br>1:1..6<br>70           | gap2 | ATCEA4<br>S1416        | 86     | ATL8C4<br>1:97..<br>670          | 0.81 |  |  |  |  |  |  |  |  |  |  |   |
| 160358 | ATU022<br>298 | ATL8C3<br>3674:1<br>10..99<br>6  | gap2 | ATCEA4<br>S27570       | 86     | ATL8C3<br>3674:1<br>10..88<br>5  | 0.81 |  |  |  |  |  |  |  |  |  |  |   |
| 160359 | ATU022<br>299 | ATL8C2<br>4970:4<br>4..893       | gap2 | ATCEA4<br>C11825<br>71 | 86     | ATL8C2<br>4970:4<br>4..893<br>5  | 0.80 |  |  |  |  |  |  |  |  |  |  |   |
| 160360 | ATU022<br>300 | ATL8S2<br>7748:3<br>96..1        | gap2 | ATCEA4<br>S30993       | 86     | ATL8S2<br>7748:2<br>55..13<br>6  | 0.80 |  |  |  |  |  |  |  |  |  |  |   |
| 160361 | ATU022<br>301 | ATL8C1<br>6183:2<br>54..23<br>51 | gap2 | ATCEA4<br>S31804       | 86     | ATL8C1<br>6183:2<br>54..23<br>51 | 0.80 |  |  |  |  |  |  |  |  |  |  |   |
| 160362 | ATU022<br>302 | ATL8S1<br>152:1.<br>.451         | gap2 | ATCEA4<br>C7417<br>1   | 86     | ATL8S1<br>152:17<br>6..253       | 0.79 |  |  |  |  |  |  |  |  |  |  |   |
| 160363 | ATU022<br>303 | ATL8C3<br>8353:5<br>..986        | gap2 | ATCEA4<br>C30878<br>1  | 86     | ATL8C3<br>8353:5<br>..476        | 0.79 |  |  |  |  |  |  |  |  |  |  |   |
| 160364 | ATU022        | ATL8C1                           | gap2 | ATCEA4                 | 86, 83 | ATL8C1                           | 0.78 |  |  |  |  |  |  |  |  |  |  |   |



|        |               |                                   |                         |      |                        |                                   |      |              |     |      |              |  |
|--------|---------------|-----------------------------------|-------------------------|------|------------------------|-----------------------------------|------|--------------|-----|------|--------------|--|
| 160375 | 314           | 9479:1<br>418..1                  | S2548                   |      | 9479:1<br>418..1<br>85 |                                   |      |              |     |      |              |  |
| 160376 | ATU022<br>315 | ATL8C1<br>4203:1<br>..518         | ATCEA4<br>C13980<br>4 1 | gap2 | 86                     | ATL8C1<br>4203:7<br>9..518        | 0.74 |              |     |      |              |  |
| 160377 | ATU022<br>316 | ATL8C1<br>7647:2<br>868..2<br>024 | ATCEA4<br>S31583        | gap2 | 86                     | ATL8C1<br>7647:2<br>868..2<br>405 | 0.73 |              |     |      |              |  |
| 160378 | ATU022<br>317 | ATL8C2<br>8178:8<br>69..76        | ATCEA4<br>S3989         | gap2 | 86                     | ATL8C2<br>8178:8<br>69..76        | 0.73 |              |     |      |              |  |
| 160379 | ATU022<br>318 | ATL8C2<br>3960:1<br>449..4<br>1   | ATCEA4<br>S8141         | gap2 | 86                     | ATL8C2<br>3960:1<br>449..8<br>5   | 0.73 |              |     |      |              |  |
| 160380 | ATU022<br>319 | ATL8C2<br>7050:3<br>456..1<br>26  | ATCEA4<br>C29413<br>_1  | gap2 | 85                     | ATL8C2<br>7050:3<br>347..1<br>26  | 0.72 | g21601<br>53 | 100 | 1321 | 1.4e-<br>138 | (AC000<br>375)<br>Simila<br>r to<br>Xenopu<br>s TER<br>ATPase<br>(gb X5<br>4240).<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160381 | ATU022<br>320 | ATL8C3<br>2192:1<br>504..8<br>29  | ATCEA4<br>S26781        | gap2 | 86                     | ATL8C3<br>2192:1<br>470..8<br>29  | 0.71 |              |     |      |              |  |
| 160382 | ATU022<br>321 | ATL8C2<br>888:94<br>8..109        | ATCEA4<br>S11458        | gap2 | 86                     | ATL8C2<br>888:94<br>8..109        | 0.71 |              |     |      |              |  |
| 160383 | ATU022<br>322 | ATL8C4<br>7128:1<br>384..8        | ATCEA4<br>S3610         | gap2 | 86                     | ATL8C4<br>7128:1<br>384..1        | 0.71 |              |     |      |              |  |



|        |               |  |      |                                      |        |   |      |              |     |      |              |  |
|--------|---------------|--|------|--------------------------------------|--------|---|------|--------------|-----|------|--------------|--|
| 160383 | ATU022<br>323 | 14<br>ATL8C8<br>091:32<br>14..11<br>60 | gap2 | ATCEA4<br>C6281_3                    | 85     | 197<br>ATL8C8<br>091:31<br>06..12<br>51 | 0.70 | 946181<br>2  | 100 | 1257 | 4.5e-<br>130 | CYTOCH<br>ROME<br>P450<br>72<br>(CYPLX<br>XII)<br>(PROBA<br>BLE<br>GERANI<br>OL-10-<br>HYDROX<br>YLASE)<br>(GE10H<br>)<br>[Catha<br>ranthu<br>s<br>roseus<br>] |
| 160384 | ATU022<br>324 | ATL8C1<br>1273:8<br>1..867             | gap2 | ATCEA4<br>C8403_1                    | 86     | ATL8C1<br>1273:8<br>1..867              | 0.69 |              |     |      |              |  |
| 160385 | ATU022<br>325 | ATL8C1<br>4406:1<br>708..7<br>24       | gap2 | ATCEA4<br>S3610,<br>ATCEA4<br>S13040 | 86, 84 | ATL8C1<br>4406:1<br>708..9<br>84        | 0.68 |              |     |      |              |  |
| 160386 | ATU022<br>326 | ATL8C5<br>577:99<br>1..361             | gap2 | ATCEA4<br>S7409                      | 86     | ATL8C5<br>577:99<br>0..361              | 0.68 |              |     |      |              |  |
| 160387 | ATU022<br>327 | ATL8C1<br>9783:1<br>11..13<br>56       | gap2 | ATCEA4<br>S36276                     | 86     | ATL8C1<br>9783:2<br>04..10<br>13        | 0.68 |              |     |      |              |  |
| 160388 | ATU022<br>328 | ATL8C2<br>0262:1<br>..702              | gap2 | ATCEA4<br>S35297                     | 86     | ATL8C2<br>0262:5<br>95..70<br>2         | 0.67 |              |     |      |              |  |
| 160389 | ATU022<br>329 | ATL8C1<br>303:96                       | gap2 | ATCEA4<br>C1548                      | 85     | ATL8C1<br>303:96                        | 0.67 | 924629<br>25 | 100 | 1283 | 3.0e-<br>119 | (AJ000<br>053)   |

|        |               |                                 |      |   |              |                                  |              |                                  |      |              |  |
|--------|---------------|---------------------------------|------|---|--------------|----------------------------------|--------------|----------------------------------|------|--------------|--|
| 160390 | ATU022<br>330 | 19..57<br>32                    | gap2 | 20  | 17..57<br>32 | 0.67                             | g45860<br>48 | 100                              | 1865 | 2.3e-<br>196 | (AC007<br>020)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160391 | ATU022<br>331 | ATL8C1<br>7458:1<br>..955       | gap2 | ATCEA4<br>C13099<br>3_1                   | 86           | ATL8C1<br>7458:2<br>28..95<br>5  | 0.67         | ATL8C3<br>5651:2<br>83..59<br>9  | 0.66 | 0.66         |  |
| 160392 | ATU022<br>332 | ATL8C1<br>3199:1<br>..352       | gap2 | ATCEA4<br>S30745<br>,<br>ATCEA4<br>S26347 | 86, 85       | ATL8C1<br>3199:4<br>2..348       | 0.66         | ATL8C1<br>2912:1<br>629..3<br>68 | 0.66 | 0.66         |  |
| 160393 | ATU022<br>333 | ATL8C4<br>2912:1<br>735..5<br>4 | gap2 | ATCEA4<br>S13008                          | 85           | ATL8C4<br>2912:1<br>629..3<br>68 | 0.66         | ATL8C4<br>2912:1<br>629..3<br>68 | 0.66 | 0.66         |  |





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| 160408 | ATU022<br>348 | ATL8C8<br>946:56<br>94...1       | gap2 | ATCEA4<br>S23799 | 85 | ATL8C8<br>946:56<br>94...58      | 0.57 | g23427<br>33,<br>g45811<br>10 | 100,<br>45 | 1943,<br>1612 | 6.9e-<br>174,<br>4.8e-<br>161 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 160409 | ATU022<br>349 | ATL8C2<br>4896:5<br>73...71<br>5 | gap2 | ATCEA4<br>S11875 | 86 | ATL8C2<br>4896:6<br>40...71<br>5 | 0.56 |                               |            |               |                               | (AC002<br>341)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>825)<br>putati<br>ve<br>retrot<br>ranspo<br>son ,<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160410 | ATU022<br>350 | ATL8C4<br>0590:6                 | gap2 | ATCEA4<br>S11406 | 86 | ATL8C4<br>0590:4                 | 0.56 |                               |            |               |                               |   |

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|--------|---------------|----------------------------------|------|--|---------|----------------------------------|------|--|--|--|--|--|
| 160419 | ATU022<br>359 | ATL8S2<br>6028:2<br>35..57<br>5  | gap2 | ATCEA4<br>S18138                           | 86      | ATL8S2<br>6028:3<br>78..26<br>3  | 0.47 |  |  |  |  |  |
| 160420 | ATU022<br>360 | ATL8C3<br>0033:5<br>93..89<br>6  | gap2 | ATCEA4<br>C69724<br>_1                     | 86      | ATL8C3<br>0033:8<br>22..77<br>9  | 0.45 |  |  |  |  |  |
| 160421 | ATU022<br>361 | ATL8C3<br>6254:1<br>72..14<br>59 | gap2 | ATCEA4<br>S23477                           | 86      | ATL8C3<br>6254:1<br>72..14<br>59 | 0.44 |  |  |  |  |  |
| 160422 | ATU022<br>362 | ATL8C4<br>9939:1<br>4..285<br>6  | gap2 | ATCEA4<br>C3350 _<br>1,<br>ATCEA4<br>S3045 | 86, -86 | ATL8C4<br>9939:1<br>4..285<br>6  | 0.44 |  |  |  |  |  |
| 160423 | ATU022<br>363 | ATL8C1<br>703:19<br>..599        | gap2 | ATCEA4<br>C29638<br>1                      | 86      | ATL8C1<br>703:19<br>..590        | 0.43 |  |  |  |  |  |
| 160424 | ATU022<br>364 | ATL8C2<br>2264:5<br>57..89<br>2  | gap2 | ATCEA4<br>S5556                            | 86      | ATL8C2<br>2264:6<br>82..85<br>9  | 0.41 |  |  |  |  |  |
| 160425 | ATU022<br>365 | ATL8C2<br>173:12<br>73..94       | gap2 | ATCEA4<br>S12819                           | 86      | ATL8C2<br>173:12<br>73..94       | 0.41 |  |  |  |  |  |
| 160426 | ATU022<br>366 | ATL8C2<br>240:43<br>5..296       | gap2 | ATCEA4<br>S253                             | 86      |                                  |      |  |  |  |  |  |
| 160427 | ATU022<br>367 | ATL8C3<br>3996:6<br>45..23<br>0  | gap2 | ATCEA4<br>S1940                            | 86      |                                  |      |  |  |  |  |  |
| 160428 | ATU022<br>368 | ATL8C4<br>3018:1<br>07..1        | gap2 | ATCEA4<br>C18251<br>1                      | 86      |                                  |      |  |  |  |  |  |
| 160429 | ATU022<br>369 | ATL8C5<br>0149:3<br>103..3       | gap2 | ATCEA4<br>S30145                           | 86      |                                  |      |  |  |  |  |  |

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[illegible]













































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| 160778 | ATU022<br>718 | ATL8C7<br>825:77<br>0..187<br>7  | gap2 | ATCEA4<br>S16353        | 85 |  | ATL8C7<br>825:77<br>0..187<br>7  | 0.55 | g37860<br>08 | 99 | 133  | 4.9e-<br>06 | dopsis<br>thalia<br>na]<br>(AC005<br>499)<br>unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160779 | ATU022<br>719 | ATL8C4<br>6944:2<br>57..11<br>79 | gap2 | ATCEA4<br>C11873<br>5_1 | 85 |  | ATL8C4<br>6944:2<br>57..11<br>79 | 0.65 | g45843<br>53 | 98 | 112  | 1.3e-<br>06 | (AC006<br>420)<br>unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 160780 | ATU022<br>720 | ATL8C4<br>9882:9<br>71..1        | gap2 | ATCEA4<br>C71369<br>_1  | 85 |  |                                  |      | g42042<br>68 | 92 | 1166 | 9.8e-<br>94 | (AC005<br>223)<br>62134<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 160781 | ATU022<br>721 | ATL8C1<br>68:258<br>8..548<br>9  | gap2 | ATCEA4<br>S27391        | 85 |  |                                  |      | g45672<br>96 | 91 | 470  |             | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n                           |

|        |               |                                  |      |   |               |                                  |      |              |    |      |   |
|--------|---------------|----------------------------------|------|---|---------------|----------------------------------|------|--------------|----|------|---|
| 160782 | ATU022<br>722 | ATL8C1<br>0469:2<br>83..20<br>36 | gap2 | ATCEA4<br>C35048<br>_1  | 85            | ATL8C1<br>0469:3<br>55..19<br>34 | 0.44 | g42042<br>72 | 86 | 2345 | [Arabi<br>dopsis<br>thalia<br>na]   |
| 160783 | ATU022<br>723 | ATL8C7<br>913:14<br>35..21<br>7  | gap2 | ATCEA4<br>S5930,<br>ATCEA4<br>C23745<br>_1,<br>ATCEA4<br>S22160 | 85,<br>83, 82 | ATL8C7<br>913:12<br>74..37<br>9  | 0.94 | g36436<br>07 | 83 | 825  | (AC005<br>395)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 160784 | ATU022<br>724 | ATL8C2<br>4277:1<br>297..1       | gap2 | ATCEA4<br>C99068<br>_1  | 85            | ATL8C2<br>4277:1<br>222..2<br>09 | 0.83 | g45672<br>61 | 83 | 1127 | (AC006<br>841)<br>putati<br>ve<br>NADPH<br>depend<br>ent<br>mannos<br>e 6-<br>phosph<br>ate<br>reduct<br>ase<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                            |      |                  |    |  |                        |                               |        |              |                              |   |
|--------|---------------|----------------------------|------|------------------|----|--|------------------------|-------------------------------|--------|--------------|------------------------------|---|
| 160785 | ATU022<br>725 | ATL8C3<br>1559:1<br>661..1 | gap2 | ATCEA4<br>S28945 | 85 | ATL8C3<br>1559:1<br>585..1<br>07   | 0.70                   | g29841<br>19                  | 83     | 373          | 2.7e-<br>42                  | na]<br>(AE000<br>758)<br>peptid<br>e<br>chain<br>releas<br>e<br>factor<br>RF-2<br>[Aquif<br>ex<br>aeolic<br>us].                            |
| 160786 | ATU022<br>726 | ATL8C8<br>689:10<br>01..1  | gap2 | ATCEA4<br>S10691 | 85 |  |                        | g27087<br>51                  | 83     | 549          | 1.4e-<br>59                  | (AC003<br>952)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 160787 | ATU022<br>727 | ATL8C3<br>1796:7<br>397..1 | gap2 | ATCEA4<br>S27399 | 85 | ATL8C3<br>1796:5<br>60..72<br>,<br>ATL8C3<br>1796:4<br>413..1<br>332,<br>ATL8C3<br>1796:6<br>805..4<br>667 | 0.94,<br>0.84,<br>0.80 | g42635<br>44,<br>g47739<br>10 | 78, 67 | 2793,<br>362 | 1.2e-<br>277,<br>1.5e-<br>15 | (AC006<br>250)<br>putati<br>ve<br>Atwila<br>retro<br>element<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259) |



| 731    | 285:24<br>79..1 | S203 | 285:24<br>79..90                  | 45  | 100    | 250)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |             |  |  |
|--------|-----------------|------|-----------------------------------|---|--------|--|-------------|--|--|
| 160792 | ATU022<br>732   | gap2 | ATL8C4<br>7150:4<br>594..2<br>707 | ATCEA4<br>C375_3<br>,<br>ATCEA4<br>C375_1   | 85, 82 | 978  | 8.2e-<br>84 | (AC002<br>388)<br>TINY<br>transc<br>riptio<br>n<br>factor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 160793 | ATU022<br>733   | gap2 | ATL8C7<br>411:40<br>09..59<br>36  | ATCEA4<br>C56374<br>_1,<br>ATCEA4<br>C682_1 | 85, 83 | ATL8C7<br>411:40<br>09..55<br>94   | 0.51        | g37760<br>11   | (AJ010<br>469)<br>RNA<br>helica<br>se<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160794 | ATU022<br>734   | gap2 | ATL8C2<br>6714:2<br>646..2<br>37  | ATCEA4<br>S26186                            | 85     | ATL8C2<br>6714:2<br>537..2<br>37   | 0.48        | g34510<br>74   | (AL031<br>326)<br>putati<br>ve<br>protei<br>n                              |

|        |               |                                  |      |                  |    |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|------|------------------|----|----------------------------------|------|--------------|----|-----|-------------|--|
| 160795 | ATU022<br>735 | ATL8C9<br>634:65<br>68..48<br>75 | gap2 | ATCEA4<br>C853.1 | 85 | ATL8C9<br>634:65<br>25..49<br>14 | 0.71 | g32491<br>12 | 69 | 378 | 6.7e-<br>09 | [Arabi<br>dopsis<br>thalia<br>na]  |
| 160796 | ATU022<br>736 | ATL8C2<br>3155:1<br>..663        | gap2 | ATCEA4<br>S2522  | 85 |                                  |      | g44552<br>36 | 66 | 575 | 7.1e-<br>34 | (AC003<br>114)<br>Contai<br>ns<br>simila<br>rity<br>to<br>transc<br>riptio<br>n<br>factor<br>Jun-D<br>gb X60<br>063<br>from<br>Gallus<br>gallus<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160797 | ATU022<br>737 | ATL8C4<br>243:1.<br>.687         | gap2 | ATCEA4<br>S10762 | 85 | ATL8C4<br>243:23<br>9..687       | 0.78 | g11611<br>67 | 65 | 444 | 2.7e-<br>43 | (AL035<br>523)<br>hypothe<br>tical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                                  |      |                  |    |                                  |      |              |    |     |             | (L4246<br>6)<br>ethylene-  |





|        |               |                           |      |                        |    |                                 |      |              |    |      |              |  |
|--------|---------------|---------------------------|------|------------------------|----|---------------------------------|------|--------------|----|------|--------------|--|
| 160801 | ATU022<br>741 | ATL8C9<br>882:15<br>51..1 | gap2 | ATCEA4<br>C34674<br>_1 | 85 | ATL8C9<br>882:14<br>90..20<br>1 | 0.79 | g22528<br>41 | 62 | 1376 | 1.2e-<br>130 | proteol<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF076<br>274)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>es<br>(Pfam:<br>rvt.hm<br>m,<br>score:<br>12.22)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160802 | ATU022<br>742 | ATL8C3<br>3970:1          | gap2 | ATCEA4<br>S4709        | 85 | ATL8C3<br>3970:1                | 0.83 | g49268<br>66 | 61 | 720  |              | (AF013<br>293)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>509)   |



|        |               |                                 |      |                       |                  |                  |      |              |    |     |             |                |             |   |
|--------|---------------|---------------------------------|------|-----------------------|------------------|------------------|------|--------------|----|-----|-------------|----------------|-------------|---|
| 160805 | ATU022<br>745 | ATL8C3<br>4203:9<br>79..15<br>0 | gap2 | ATCEA4<br>C26488<br>4 | 85               |                  |      |              |    |     |             | 1430           | 3.9e-<br>66 | (AC004<br>561)<br>putati<br>ve RNA<br>bindin<br>g protei<br>n.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160806 | ATU022<br>746 | ATL8C3<br>245:31                | gap2 | ATCEA4<br>S31042      | 85, 84<br>85, 84 | ATL8C3<br>245:31 | 0.90 | g34510<br>68 | 57 | 624 | 1.2e-<br>54 | (AL031<br>326) |             |   |

|        |               |                            |      |  |        |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------|------|--|--------|----------------------------------|------|--------------|----|------|-------------|--|
| 160807 | ATU022<br>747 | ATL8C3<br>5465:1<br>..807  | gap2 | ATCEA4<br>S31767                           | 85     | ATL8C3<br>5465:1<br>32..50<br>9  | 0.79 | g26659<br>3  | 55 | 192  | 1.0e-<br>15 | MYROSI<br>NASE<br>MB1<br>(SINIG<br>RINASE<br>)<br>(THIOG<br>LUCOSI<br>DASE)<br>[Sinap<br>is<br>alba] |
| 160808 | ATU022<br>748 | ATL8C2<br>4261:1<br>..2733 | gap2 | ATCEA4<br>S12823<br>ATCEA4<br>C37954<br>_1 | 85, 85 | ATL8C2<br>4261:1<br>55..27<br>33 | 0.75 | g33554<br>77 | 55 | 3526 | 0.0         | (AC004<br>218)<br>putati<br>ve P-<br>glycop<br>rotein<br>, pgpl<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160809 | ATU022<br>749 | ATL8C1<br>0271:1<br>..1485 | gap2 | ATCEA4<br>S30695                           | 85     | ATL8C1<br>0271:9<br>5..963       | 0.56 | g31766<br>91 | 55 | 862  |             | (AC003<br>671)<br>Contai<br>ns<br>homolo<br>gy to<br>serine<br>/threo<br>nine                        |

|        |               |                            |      |                  |    |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------|------|------------------|----|----------------------------------|------|--------------|----|------|--------------|---|
| 160810 | ATU022<br>750 | ATL8C2<br>3844:2<br>456..1 | gap2 | ATCEA4<br>C616_1 | 85 | ATL8C2<br>3844:2<br>441..1<br>07 | 0.93 | g24941<br>65 | 54 | 1376 | 2.0e-<br>109 | protein<br>kinase<br>gb X99<br>618<br>from<br>Mycoba<br>cteriu<br>m<br>tuberc<br>ulosis<br>ESTs<br>gb F14<br>403,<br>gb F14<br>404,<br>and<br>gb N96<br>730<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                            |      |                  |    |                                  |      |              |    |      |              | DNA<br>LIGASE<br>(POLYD<br>EOXYRI<br>BONUCL<br>EOTIDE<br>SYNTHA<br>SE<br>(ATP) )<br>[Arabi<br>dopsis<br>thalia  |

|        |               |                            |      |                  |    |                                 |      |              |    |      |             |   |
|--------|---------------|----------------------------|------|------------------|----|---------------------------------|------|--------------|----|------|-------------|---|
| 160811 | ATU022<br>751 | ATL8C4<br>1773:1<br>913..1 | gap2 | ATCEA4<br>S27393 | 85 | ATL8C4<br>1773:1<br>898..9<br>9 | 0.59 | g33778<br>30 | 54 | 919  | 8.8e-<br>59 | nal<br>(AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Aplysi<br>a<br>califo<br>rnica<br>interm<br>ediate<br>filame<br>nt<br>protei<br>n A<br>(GB:X6<br>0297)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 160812 | ATU022<br>752 | ATL8C2<br>0114:8<br>26..1  | gap2 | ATCEA4<br>S1832  | 85 |                                 |      | g22621<br>71 | 54 | 1288 |             | (AC002<br>329)<br>putati<br>ve<br>RNA/ss<br>DNA-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 160813 | ATU022<br>753 | ATL8C2<br>2981:2           | gap2 | ATCEA4<br>S11721 | 85 | ATL8C2<br>2981:1                | 0.88 | g48952<br>12 | 53 | 505  | 1.6e-<br>51 | (AC007<br>661)  |

|        |               |                            |      |                                    |        |                            |      |              |    |      |             |   |
|--------|---------------|----------------------------|------|------------------------------------|--------|----------------------------|------|--------------|----|------|-------------|---|
| 160814 | ATU022<br>754 | ATL8C4<br>6745:1<br>..1514 | gap2 | ATCEA4<br>S5468,<br>ATCEA4<br>S404 | 85, 82 | ATL8C4<br>6745:6<br>7..580 | 0.69 | g29613<br>56 | 53 | 804  | 6.7e-<br>75 | (Al022<br>140)<br>alcohol<br>dehydr<br>ogenas<br>e like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160815 | ATU022<br>755 | ATL8C3<br>3877:1<br>..670  | gap2 | ATCEA4<br>C55630<br>_1             | 85     |                            |      | g11611<br>67 | 53 | 272  |             | (L4246<br>6)<br>ethylene-<br>formin<br>enzyme<br>[Picea<br>glauca<br>]                                  |
| 160816 | ATU022<br>756 | ATL8C8<br>816:1.<br>.1021  | gap2 | ATCEA4<br>C661_1                   | 85     |                            |      | g81629       | 53 | 1167 | 0.012       | glycin<br>e-rich<br>protein<br>atGRP-<br>7 -<br>Arabid<br>opsis<br>thalia                               |

|        |               |                                  |      |  |        |  |               |  |  |              |    |      |              |   |
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| 160817 | ATU022<br>757 | ATL8C1<br>5710:1<br>..1061       | gap2 | ATCEA4<br>C39083<br>1,<br>ATCEA4<br>C73563<br>_1 | 85, 83 |  |               |  |  | g39158<br>42 | 52 | 126  | 3.7e-<br>13  | RAS-<br>RELATE<br>D<br>PROTEI<br>N<br>RAB11A<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 160818 | ATU022<br>758 | ATL8S2<br>0590:5<br>56..1        | gap2 | ATCEA4<br>C13247<br>_1                           | 85     | ATL8S2<br>0590:4<br>61..12<br>9  | 0.68          |  |  | g23179<br>11 | 51 | 307  | 6.1e-<br>25  | (U8995<br>9)<br>simila<br>r to<br>GTP-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160819 | ATU022<br>759 | ATL8C4<br>5083:3<br>57..31<br>06 | gap2 | ATCEA4<br>S203                                   | 85     | ATL8C4<br>5083:3<br>57..26<br>70,<br>ATL8C4<br>5083:3<br>059..2<br>945 | 0.94,<br>0.54 |  |  | g33778<br>16 | 50 | 1712 | 1.9e-<br>189 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot       |



|        |               |                          |      |   |        |                           |      |              |    |     |             |   |
|--------|---------------|--------------------------|------|---|--------|---------------------------|------|--------------|----|-----|-------------|---|
| 160820 | ATU022<br>760 | ATL8S2<br>868:74<br>6..1 | gap2 | ATCEA4<br>S405                          | 85     | ATL8S2<br>868:70<br>3..93 | 0.98 | g31525<br>75 | 49 | 439 | 1.1e-<br>46 | ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160821 | ATU022<br>761 | ATL8C4<br>258:1.<br>.354 | gap2 | ATCEA4<br>C9180_1,<br>ATCEA4<br>C9180_2 | 85, 84 | ATL8C4<br>258:45<br>..335 | 0.49 | g11731<br>87 | 49 | 301 | 1.4e-<br>28 | 40S<br>RIBOSO<br>MAL<br>PROTEI<br>N S23<br>(S12)<br>[Fraga                      |

|        |               |                           |      |                        |        |        |      |        |    |      |       |              |    |      |             |   |
|--------|---------------|---------------------------|------|------------------------|--------|--------|------|--------|----|------|-------|--------------|----|------|-------------|---|
| 160822 | ATU022<br>762 | ATL8C4<br>7705:7<br>33..1 | gap2 | ATCEA4<br>C6239_1      | 85     |        |      |        |    |      |       | g45899<br>74 | 49 | 591  | 3.2e-<br>48 | ria x<br>ananas<br>sa]<br>(AC007<br>195)<br>unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 160823 | ATU022<br>763 | ATL8C1<br>5587:1<br>..568 | gap2 | ATCEA4<br>C20476<br>_1 | 85     |        |      |        |    |      |       | g39804<br>18 | 49 | 258  | 1.7e-<br>19 | (AC004<br>561)<br>putati<br>ve<br>tropin<br>one<br>reduct<br>ase<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 160824 | ATU022<br>764 | ATL8C2<br>0746:1<br>..888 | gap2 | ATCEA4<br>S203         | 85     |        |      |        |    |      |       | g42635<br>45 | 48 | 1033 | 6.7e-<br>54 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retroee<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160825 | ATU022        | ATL8C2                    | gap2 | ATCEA4                 | 85, 84 | ATL8C2 | 0.89 | g38343 | 47 | 1367 | 1.2e- | (AC005       |    |      |             |   |

|        |                       |                                 |                                    |                  |                       |                                 |      |              |    |  |             |   |
|--------|-----------------------|---------------------------------|------------------------------------|------------------|-----------------------|---------------------------------|------|--------------|----|--|-------------|---|
| 765    | 0790:7<br>4..214<br>0 |                                 | C3740_1,<br>ATCEA4<br>C18612<br>_1 |                  | 0790:7<br>4..200<br>0 |                                 | 02   |              | 86 | 679)<br>Simila<br>r to<br>gb D45<br>384<br>vacuol<br>ar H+-<br>pyroph<br>osphat<br>ase<br>from<br>Oryza<br>sativa<br>. ESTs<br>gb F14<br>272<br>and<br>gb F14<br>273<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |             |   |
| 160826 | ATU022<br>766         | ATL8C2<br>9687:9<br>07..25<br>0 | gap2                               | ATCEA4<br>S27097 | 85                    | ATL8C2<br>9687:8<br>89..34<br>5 | 0.77 | g43143<br>78 | 47 | 769  | 6.2e-<br>78 | (AC006<br>232)<br>putati<br>ve<br>lipase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160827 | ATU022<br>767         | ATL8C3<br>2247:8<br>53..31      | gap2                               | ATCEA4<br>C818_1 | 85, 85                | ATL8C3<br>2247:6<br>97..51      | 0.63 | g21297<br>48 | 47 | 340  | 1.7e-<br>10 | TATA-<br>bindin<br>g  |

|        | 9             |                                   |      | ATCEA4<br>S16368       |    | 8                                |      |  |  |              |    |     |         |  | protein-<br>associated<br>phospho-<br>protein<br>in Dr1 -<br>Arabidopsis<br>thaliana [ ] |
|--------|---------------|-----------------------------------|------|------------------------|----|----------------------------------|------|--|--|--------------|----|-----|---------|--|--|
| 160828 | ATU022<br>768 | ATL8C3<br>8061:2<br>043..2<br>432 | gap2 | ATCEA4<br>C56752<br>_3 | 85 |                                  |      |  |  | g33416<br>85 | 47 | 70  | 0.65    | (AC003672)<br>unknown<br>protein<br>[Arabidopsis<br>thaliana]      |  |
| 160829 | ATU022<br>769 | ATL8C8<br>885:70<br>7..291<br>2   | gap2 | ATCEA4<br>S437         | 85 |                                  |      |  |  | g36680<br>83 | 47 | 130 | 1.7e-06 | (AC004667)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana] |  |
| 160830 | ATU022<br>770 | ATL8C1<br>7098:4<br>56..15<br>65  | gap2 | ATCEA4<br>C56374<br>_1 | 85 | ATL8C1<br>7098:4<br>56..14<br>76 | 0.75 |  |  | g36874<br>76 | 46 | 274 | 2.3e-29 | (AL031786)<br>putative<br>ATP dependent<br>RNA helica              |  |

|        |               |                                   |      |                        |        |                                   |      |               |    |      |             |   |
|--------|---------------|-----------------------------------|------|------------------------|--------|-----------------------------------|------|---------------|----|------|-------------|---|
| 160831 | ATU022<br>771 | ATL8C3<br>3128:1<br>466..2<br>320 | gap2 | ATCEA4<br>S203         | 85     | ATL8C3<br>3128:1<br>501..2<br>252 | 0.46 | g42635-<br>45 | 46 | 1006 | 3.9e-<br>96 | se<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombel]<br>(AC006<br>250)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160832 | ATU022<br>772 | ATL8C5<br>983:75<br>6..8          | gap2 | ATCEA4<br>C72820<br>_1 | 85     | ATL8C5<br>983:42<br>5..12         | 0.43 | g22448<br>05  | 46 | 157  |             | (Z9733<br>6)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 160833 | ATU022<br>773 | ATL8C1<br>2184:1<br>..1231        | gap2 | ATCEA4<br>S7450        | 85     |                                   |      | g16193<br>00  | 46 | 236  | 1.7e-<br>24 | (X9526<br>9) IRR<br>protei<br>n<br>[Lycop<br>ersico<br>n<br>escule<br>ntum]   |
| 160834 | ATU022        | ATL8C1                            | gap2 | ATCEA4                 | 85, 85 | ATL8C1                            | 0.74 | g37859        | 44 | 249  | 7.8e-       | (AC005  |

|        |               |                            |      |                                       |    |                                  |      |              |    |      |  |              |  |
|--------|---------------|----------------------------|------|---------------------------------------|----|----------------------------------|------|--------------|----|------|--|--------------|--|
| 160835 | 774           | 1494:6<br>26..1            |      | S11790<br>,<br>ATCEA4<br>C66246<br>_1 |    | 1494:1<br>57..65                 |      | 99           |    |      |  | 29           | 499)<br>putati<br>ve<br>peptid<br>yl-<br>prolyl<br>cis-<br>trans<br>isomer<br>ase<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        | ATU022<br>775 | ATL8C4<br>3855:1<br>193..1 | gap2 | ATCEA4<br>C17077<br>_1                | 85 | ATL8C4<br>3855:1<br>008..1<br>16 | 0.55 | g45393<br>01 | 43 | 652  |  |              | (AL049<br>480)<br>putati<br>ve<br>mitoch<br>ondria<br>l<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 160836 | ATU022<br>776 | ATL8C5<br>782:70<br>6..81  | gap2 | ATCEA4<br>S23796                      | 85 | ATL8C5<br>782:42<br>0..108       | 0.49 | g49268<br>20 | 43 | 209  |  |              | (AC004<br>135)<br>T17H7.<br>5<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 160837 | ATU022<br>777 | ATL8C1<br>5338:1<br>..856  | gap2 | ATCEA4<br>C84204<br>_1                | 85 |                                  |      | g44688<br>05 | 43 | 1206 |  | 8.0e-<br>124 | (AL035<br>601)<br>auxin-<br>respon<br>sive   |

|        |               |                                  |      |                        |    |                                  |      |              |    |     |             |  |  |
|--------|---------------|----------------------------------|------|------------------------|----|----------------------------------|------|--------------|----|-----|-------------|--|--|
| 160838 | ATU022<br>778 | ATL8C2<br>0141:1<br>..618        | gap2 | ATCEA4<br>S34582       | 85 | ATL8C2<br>0141:7<br>..618        | 0.55 | g38927<br>15 | 41 | 190 |             |  | GH3-<br>like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 160839 | ATU022<br>779 | ATL8C3<br>1009:4<br>94..12<br>15 | gap2 | ATCEA4<br>S2714        | 85 | ATL8C3<br>1009:4<br>94..10<br>06 | 0.54 | g21911<br>42 | 41 | 952 | 1.6e-<br>92 |  | (AF007<br>269)<br>A_IG00<br>2N01.2<br>7 gene<br>product<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160840 | ATU022<br>780 | ATL8C1<br>5742:5<br>83..1        | gap2 | ATCEA4<br>C80181<br>_1 | 85 |                                  |      | g41057<br>98 | 41 | 146 | 7.9e-<br>16 |  | (AF049<br>930)<br>PGP237<br>-11<br>[Petun<br>ia x<br>hybrid<br>a]                            |
| 160841 | ATU022<br>781 | ATL8C4<br>1079:8<br>45..1        | gap2 | ATCEA4<br>C6762<br>_1  | 85 |                                  |      | g46783<br>20 | 41 | 975 | 9.6e-<br>98 |  | (AL049<br>658)<br>hypoth   |

|        |               |                                  |      |  |        |                                 |      |              |    |      |              |  |
|--------|---------------|----------------------------------|------|--|--------|---------------------------------|------|--------------|----|------|--------------|--|
| 160842 | ATU022<br>782 | ATL8C1<br>1944:1<br>..2043       | gap2 | ATCEA4<br>C62031<br>_1                       | 85     | ATL8C1<br>1944:8<br>6..202<br>7 | 0.98 | g27393<br>71 | 40 | 910  | 3.7e-<br>67  | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 160843 | ATU022<br>783 | ATL8C3<br>4213:9<br>08..18       | gap2 | ATCEA4<br>S29681                             | 85     | ATL8C3<br>4213:7<br>44..18      | 0.54 | g62959<br>2  | 40 | 186  | 8.1e-<br>11  | hypoth<br>etical<br>protei<br>n -<br>rape<br>[]                                    |
| 160844 | ATU022<br>784 | ATL8C1<br>7614:1<br>063..1<br>49 | gap2 | ATCEA4<br>S26000<br>, ATCEA4<br>C54462<br>_2 | 85, 82 | ATL8C1<br>7614:6<br>06..37<br>4 | 0.42 | g44552<br>03 | 40 | 309  | 4.2e-<br>30  | (AL035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160845 | ATU022<br>785 | ATL8C4<br>6769:2<br>72..13<br>40 | gap2 | ATCEA4<br>S2714                              | 85     |                                 |      | g21911<br>42 | 39 | 1206 | 8.1e-<br>120 | (AF007<br>269)<br>A IG00<br>2N01.2<br>7 gene<br>produc<br>t                        |



|        |               |                           |      |                        |    |                           |      |                               |        |             |                             |  |
|--------|---------------|---------------------------|------|------------------------|----|---------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 160846 | ATU022<br>786 | ATL8C9<br>61:191<br>..504 | gap2 | ATCEA4<br>S13987       | 85 | ATL8C9<br>61:192<br>..472 | 0.76 | g45859<br>77                  | 36     | 284         | 1.1e-<br>30                 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>287)<br>Unknow<br>n protei<br>n [Arabi<br>dopsis<br>thalia<br>na]   |
| 160847 | ATU022<br>787 | ATL8C3<br>813:1.<br>.979  | gap2 | ATCEA4<br>C74591<br>_1 | 85 | ATL8C3<br>813:95<br>..963 | 0.93 | g30969<br>49,<br>g30969<br>47 | 35, 35 | 180,<br>181 | 1.8e-<br>11,<br>1.6e-<br>11 | (Y1632<br>8)<br>putati<br>ve cyclic<br>nucleo<br>tide-<br>regula<br>ted ion<br>channe<br>l [Arabi<br>dopsis<br>thalia<br>na];<br>(Y1632<br>7)<br>putati<br>ve cyclic<br>nucleo<br>tide-<br>regula<br>ted ion |

|        |               |                            |      |                        |    |  |               |              |    |     |             |   |
|--------|---------------|----------------------------|------|------------------------|----|--|---------------|--------------|----|-----|-------------|---|
| 160848 | ATU022<br>788 | ATL8C2<br>3819:1<br>..1452 | gap2 | ATCEA4<br>S34816       | 85 | ATL8C2<br>3819:5<br>71..10<br>33,<br>ATL8C2<br>3819:1<br>420..1<br>283 | 0.60,<br>0.93 | g22447<br>85 | 35 | 571 | 5.2e-<br>56 | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 160849 | ATU022<br>789 | ATL8C6<br>637:1.<br>.1909  | gap2 | ATCEA4<br>C35810<br>_2 | 85 |  |               | g45845<br>39 | 35 | 327 | 1.2e-<br>29 | (AL049<br>608)<br>extens<br>in-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160850 | ATU022<br>790 | ATL8C1<br>7062:1<br>..595  | gap2 | ATCEA4<br>C12989<br>_1 | 85 |  |               | g24649<br>01 | 35 | 334 | 4.5e-<br>28 | (Z9970<br>8)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 160851 | ATU022<br>791 | ATL8C1<br>0962:6<br>95..12 | gap2 | ATCEA4<br>S23796       | 85 |  |               | g49268<br>20 | 35 | 205 | 2.4e-<br>17 | (AC004<br>135)<br>T17H7.  |

|        |               |                                  |      |                         |    |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|------|-------------------------|----|----------------------------------|------|--------------|----|-----|-------------|--|
| 160852 | ATU022<br>792 | ATL8C1<br>9055:1<br>184..7<br>39 | gap2 | ATCEA4<br>C15314<br>6_1 | 85 | ATL8C1<br>9055:1<br>106..7<br>39 | 0.88 | g22390<br>89 | 34 | 293 | 5.1e-<br>28 | 5<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 160853 | ATU022<br>793 | ATL8C1<br>9220:9<br>70..1        | gap2 | ATCEA4<br>S826          | 85 | ATL8C1<br>9220:4<br>38..2        | 0.84 | g62966<br>9  | 34 | 179 | 1.9e-<br>19 | (Z8438<br>6)<br>antra<br>nilate<br>N-<br>hydrox<br>ycinna<br>moyl/b<br>enzoyl<br>transf<br>erase<br>[Diant<br>hus<br>caryop<br>hyllus<br>] |
| 160854 | ATU022<br>794 | ATL8C4<br>9743:1<br>..571        | gap2 | ATCEA4<br>S31434        | 85 |                                  |      | g30803<br>54 | 34 | 338 | 2.5e-<br>30 | (AL022<br>580)<br>hypoth<br>etical<br>protei<br>n -<br>tomato<br>[]  |
| 160855 | ATU022<br>795 | ATL8C3<br>5891:1<br>..675        | gap2 | ATCEA4<br>C23797<br>1   | 85 |                                  |      | g45443<br>87 | 34 | 637 | 1.3e-<br>47 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>047)<br>putati  |



|        |               |                           |      |                  |    |                                  |      |              |    |      |              |   |
|--------|---------------|---------------------------|------|------------------|----|----------------------------------|------|--------------|----|------|--------------|---|
| 160858 | ATU022<br>798 | ..1173                    | gap2 | ATCEA4<br>S860   | 85 | 65..11<br>73                     | 0.78 | g44552<br>24 | 33 | 2842 | 1.4e-<br>293 | hypothetical protein [Arabidopsis thaliana]                           |
|        |               |                           |      |                  |    | ATL8C1<br>6285:2<br>391..5<br>17 |      |              |    |      |              | (AL035440) putative protein [Arabidopsis thaliana]                    |
| 160859 | ATU022<br>799 | ATL8S3<br>23:673<br>..1   | gap2 | ATCEA4<br>S12916 | 85 | ATL8S3<br>23:365<br>..73         | 0.76 | g31281<br>93 | 33 | 128  | 5.1e-<br>05  | (AC004521) hypothetical protein [Arabidopsis thaliana]                |
|        |               |                           |      |                  |    |                                  |      |              |    |      |              |   |
| 160860 | ATU022<br>800 | ATL8S2<br>6010:3<br>49..1 | gap2 | ATCEA4<br>C964_1 | 85 | ATL8S2<br>6010:1<br>54..26<br>5  | 0.88 | g11691<br>99 | 32 | 252  | 2.4e-<br>21  | DNA-DAMAGE - REPAIR /TOLERATION PROTEIN DRT102 [Arabidopsis thaliana] |

|        |               |                                 |      |                  |    |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------------|------|------------------|----|---------------------------------|------|--------------|----|-----|-------------|---|
| 160861 | ATU022<br>801 | ATL8C1<br>568:15<br>29..11<br>5 | gap2 | ATCEA4<br>S11615 | 85 | ATL8C1<br>568:13<br>01..23<br>6 | 0.56 | g33353<br>47 | 32 | 646 | 1.2e-<br>44 | nal<br>(AC004<br>512)<br>Contai<br>ns<br>simila<br>rity<br>to<br>ARI,<br>RING<br>finger<br>protei<br>n<br>gb X98<br>309<br>from<br>Drosop<br>hila<br>melano<br>gaster<br>.<br>ESTs<br>gb T44<br>383,<br>gb W43<br>120,<br>gb N65<br>868,<br>gb H36<br>013,<br>gb AA0<br>42241,<br>gb T76<br>869<br>and<br>gb AA0<br>42359<br>come<br>from<br>this |
|--------|---------------|---------------------------------|------|------------------|----|---------------------------------|------|--------------|----|-----|-------------|---|

|        |               |                            |      |                         |    |                                  |      |              |    |              |              |  |             |  |
|--------|---------------|----------------------------|------|-------------------------|----|----------------------------------|------|--------------|----|--------------|--------------|--|-------------|--|
| 160862 | ATU022<br>802 | ATL8C4<br>2879:1<br>..1123 | gap2 | ATCEA4<br>C15168<br>0_1 | 85 |                                  |      |              |    | g43888<br>34 | 32           | 436  | 3.7e-<br>42 | (AC006<br>528)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>RPP1,<br>3',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160863 | ATU022<br>803 | ATL8C1<br>6629:1<br>..1292 | gap2 | ATCEA4<br>S12281        | 85 | ATL8C1<br>6629:1<br>12..12<br>92 | 0.80 | g31766<br>59 | 31 | 1022         | 6.3e-<br>106 | (AC004<br>393)<br>Strong<br>simila<br>rity<br>to<br>recept<br>or<br>kinase<br>gb M80<br>238<br>from<br>A.<br>thalia<br>na.<br>[Arabi<br>dopsis |             |  |

|        |               |                            |      |                       |    |  |  |  |  |                            |              |    |     |             |  |
|--------|---------------|----------------------------|------|-----------------------|----|--|--|--|--|----------------------------|--------------|----|-----|-------------|--|
| 160864 | ATU022<br>804 | ATL8C4<br>7576:3<br>46..1  | gap2 | ATCEA4<br>C6502_1     | 85 |  |  |  |  |                            | g21911<br>77 | 31 | 225 | 7.0e-<br>08 | thalia<br>na]<br>(AF007<br>270)<br>belong<br>s to<br>the<br>SPOU<br>family<br>of<br>rRNA<br>methyl<br>ases.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160865 | ATU022<br>805 | ATL8C1<br>1715:1<br>..1031 | gap2 | ATCEA4<br>S33299      | 85 |  |  |  |  |                            | g36680<br>93 | 31 | 209 | 1.7e-<br>19 | (AC004<br>667)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 160866 | ATU022<br>806 | ATL8S7<br>374:1.<br>.315   | gap2 | ATCEA4<br>S9436       | 85 |  |  |  |  | ATL8S7<br>374:69<br>..300  | g49143<br>41 | 30 | 343 | 1.4e-<br>32 | (AC005<br>489)<br>F14N23<br>.27<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 160867 | ATU022<br>807 | ATL8C4<br>9103:8<br>7..596 | gap2 | ATCEA4<br>C29197<br>1 | 85 |  |  |  |  | ATL8C4<br>9103:9<br>0..535 |              |    |     |             |  |
| 160868 | ATU022<br>808 | ATL8S2<br>2125:3           | gap2 | ATCEA4<br>C26442      | 85 |  |  |  |  | ATL8S2<br>2125:3           |              |    |     |             |  |





|        |               |                                  |      |   |        |                                  |      |              |     |      |  |                |
|--------|---------------|----------------------------------|------|---|--------|----------------------------------|------|--------------|-----|------|--|----------------|
| 160878 | ATU022<br>818 | ATL8C2<br>2642:5<br>52..1        | gap2 | ATCEA4<br>S18339                          | 85     | ATL8C2<br>2642:4<br>49..16<br>9  | 0.95 |              |     |      |  |                |
| 160879 | ATU022<br>819 | ATL8C6<br>936:17<br>02..13<br>32 | gap2 | ATCEA4<br>C13330<br>_1                    | 85     | ATL8C6<br>936:15<br>78..13<br>79 | 0.95 |              |     |      |  |                |
| 160880 | ATU022<br>820 | ATL8C4<br>6361:8<br>77..23<br>1  | gap2 | ATCEA4<br>C22047<br>_1                    | 85     | ATL8C4<br>6361:8<br>77..26<br>0  | 0.95 |              |     |      |  |                |
| 160881 | ATU022<br>821 | ATL8C3<br>0270:1<br>036..5<br>87 | gap2 | ATCEA4<br>S12521                          | 85     | ATL8C3<br>0270:9<br>97..65<br>7  | 0.94 |              |     |      |  |                |
| 160882 | ATU022<br>822 | ATL8S4<br>924:1.<br>.544         | gap2 | ATCEA4<br>S6553                           | 85     | ATL8S4<br>924:31<br>..544        | 0.94 |              |     |      |  |                |
| 160883 | ATU022<br>823 | ATL8C1<br>1690:2<br>32..27<br>36 | gap2 | ATCEA4<br>S6796                           | 85     | ATL8C1<br>1690:2<br>32..27<br>36 | 0.93 |              |     |      |  |                |
| 160884 | ATU022<br>824 | ATL8C2<br>517:67<br>0..14        | gap2 | ATCEA4<br>S1951                           | 85     | ATL8C2<br>517:61<br>9..14        | 0.93 |              |     |      |  |                |
| 160885 | ATU022<br>825 | ATL8C4<br>9037:1<br>..919        | gap2 | ATCEA4<br>S443                            | 85     | ATL8C4<br>9037:2<br>..919        | 0.92 |              |     |      |  |                |
| 160886 | ATU022<br>826 | ATL8C3<br>1726:4<br>09..13<br>60 | gap2 | ATCEA4<br>S13040<br>,<br>ATCEA4<br>S11274 | 85, 82 | ATL8C3<br>1726:4<br>09..11<br>27 | 0.92 |              |     |      |  |                |
| 160887 | ATU022<br>827 | ATL8C1<br>1870:1<br>02..13<br>76 | gap2 | ATCEA4<br>S25956                          | 85     | ATL8C1<br>1870:1<br>02..11<br>03 | 0.92 |              |     |      |  |                |
| 160888 | ATU022<br>828 | ATL8C3<br>7202:5                 | gap2 | ATCEA4<br>S4334                           | 84     | ATL8C3<br>7202:5                 | 0.91 | g32128<br>63 | 100 | 1320 |  | (AC004<br>005) |



|        |               |                                   |      |                                     |        |                                   |      |        |     |     |       |        |
|--------|---------------|-----------------------------------|------|-------------------------------------|--------|-----------------------------------|------|--------|-----|-----|-------|--------|
| 160895 | 834           | 423:1.<br>.362                    |      | S32057                              |        | 423:44<br>..347                   |      |        |     |     |       |        |
|        | ATU022<br>835 | ATL8C1<br>3547:8<br>8..241<br>2   | gap2 | ATCEA4<br>S11328                    | 85     | ATL8C1<br>3547:2<br>412..8<br>8   | 0.88 |        |     |     |       |        |
| 160896 | ATU022<br>836 | ATL8C7<br>026:63<br>7..115        | gap2 | ATCEA4<br>C45397<br>1               | 85     | ATL8C7<br>026:59<br>4..115        | 0.87 |        |     |     |       |        |
| 160897 | ATU022<br>837 | ATL8C1<br>2038:2<br>..1816        | gap2 | ATCEA4<br>C78702<br>1               | 85     | ATL8C1<br>2038:2<br>..1754        | 0.87 |        |     |     |       |        |
| 160898 | ATU022<br>838 | ATL8C4<br>9752:3<br>338..2<br>310 | gap2 | ATCEA4<br>S400,<br>ATCEA4<br>S12635 | 85, 83 | ATL8C4<br>9752:3<br>095..2<br>310 | 0.87 |        |     |     |       |        |
| 160899 | ATU022<br>839 | ATL8C2<br>819:14<br>53..15<br>3   | gap2 | ATCEA4<br>S31574                    | 85     | ATL8C2<br>819:14<br>08..15<br>3   | 0.86 |        |     |     |       |        |
| 160900 | ATU022<br>840 | ATL8C1<br>1999:2<br>7..326<br>3   | gap2 | ATCEA4<br>C11992<br>0_1             | 85     | ATL8C1<br>1999:2<br>7..326<br>3   | 0.86 |        |     |     |       |        |
| 160901 | ATU022<br>841 | ATL8C3<br>6116:4<br>20..17<br>59  | gap2 | ATCEA4<br>C6666_<br>1               | 85     | ATL8C3<br>6116:4<br>20..17<br>59  | 0.86 |        |     |     |       |        |
| 160902 | ATU022<br>842 | ATL8C4<br>6897:3<br>160..1<br>23  | gap2 | ATCEA4<br>S29657                    | 85     | ATL8C4<br>6897:3<br>160..1<br>23  | 0.86 |        |     |     |       |        |
| 160903 | ATU022<br>843 | ATL8S1<br>33:468<br>..1           | gap2 | ATCEA4<br>S902                      | 85     | ATL8S1<br>33:454<br>..293         | 0.85 |        |     |     |       |        |
| 160904 | ATU022<br>844 | ATL8C1<br>855:14<br>47..28<br>77  | gap2 | ATCEA4<br>S5833                     | 85     | ATL8C1<br>855:14<br>47..28<br>77  | 0.85 |        |     |     |       |        |
| 160905 | ATU022        | ATL8C3                            | gap2 | ATCEA4                              | 84,    | ATL8C3                            | 0.85 | g26217 | 100 | 296 | 1.8e- | (AE000 |

| 845    | 1058:2<br>562..3<br>4 |      | S1326,<br>ATCEA4<br>S34434<br>,<br>ATCEA4<br>C73963<br>_1 | 83, 82 | 1058:2<br>562..2<br>34            | 67   | 24 | 848)<br>conser<br>ved<br>protei<br>n<br>[Metha<br>nobact<br>erium<br>thermo<br>autotr<br>ophicu<br>m] |
|--------|-----------------------|------|---|--------|-----------------------------------|------|----|---|
| 160906 | ATU022<br>846         | gap2 | ATCEA4<br>S30750  | 85     | ATL8C5<br>73:124<br>..872         | 0.84 |    |   |
| 160907 | ATU022<br>847         | gap2 | ATCEA4<br>S7704   | 85     | ATL8C1<br>3137:4<br>236..1<br>385 | 0.84 |    |   |
| 160908 | ATU022<br>848         | gap2 | ATCEA4<br>S5540   | 85     | ATL8C4<br>0161:3<br>10..45        | 0.84 |    |   |
| 160909 | ATU022<br>849         | gap2 | ATCEA4<br>S7622   | 85     | ATL8C2<br>8072:3<br>27..11<br>60  | 0.84 |    |   |
| 160910 | ATU022<br>850         | gap2 | ATCEA4<br>C5036_1   | 85     | ATL8S7<br>60:67.<br>.163          | 0.82 |    |   |
| 160911 | ATU022<br>851         | gap2 | ATCEA4<br>C605_1  | 85     | ATL8C3<br>2356:6<br>2..121<br>2   | 0.82 |    |   |
| 160912 | ATU022<br>852         | gap2 | ATCEA4<br>C13133<br>5_1                                   | 85     | ATL8C2<br>0299:7<br>15..88<br>3   | 0.82 |    |   |
| 160913 | ATU022<br>853         | gap2 | ATCEA4<br>S16097  | 85     | ATL8C3<br>2846:3<br>127..4        | 0.82 |    |   |



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| 160922 | ATU022<br>862 | ATL8C1<br>616:21<br>6..216<br>1  | gap2 | ATCEA4<br>S81   | 84     | ATL8C1<br>616:29<br>9..216<br>1  | 0.80 | g45672<br>96 | 100 | 2352 | 8.0e-<br>191 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 160923 | ATU022<br>863 | ATL8C1<br>865:47<br>3..191<br>1  | gap2 | ATCEA4<br>S3262 | 84     | ATL8C1<br>865:50<br>9..191<br>1  | 0.80 | g26421<br>59 | 100 | 1531 | 1.2e-<br>163 | (AC003<br>000)<br>putati<br>ve<br>mannos<br>e-1-<br>phosph<br>ate<br>guanylyl<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160924 | ATU022<br>864 | ATL8C3<br>0666:1<br>591..6<br>12 | gap2 | ATCEA4<br>S1519 | 85     | ATL8C3<br>0666:1<br>444..6<br>12 | 0.80 |              |     |      |              |   |
| 160925 | ATU022        | ATL8C3                           | gap2 | ATCEA4          | 85, 82 | ATL8C3                           | 0.79 |              |     |      |              |   |

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| 160926 | 865           | 0932:6<br>97..31<br>7            | gap2 | S35300<br>,<br>ATCEA4<br>S36305 |    | 0932:6<br>97..57<br>0            |      |             |     |     |      |   |  |
|        | ATU022<br>866 | ATL8C2<br>2910:1<br>..1258       | gap2 | ATCEA4<br>S16130                | 85 | ATL8C2<br>2910:3<br>3..125<br>8  | 0.79 |             |     |     |      |   |  |
| 160927 | ATU022<br>867 | ATL8C2<br>9277:1<br>33..17<br>69 | gap2 | ATCEA4<br>S6304                 | 84 | ATL8C2<br>9277:2<br>09..17<br>69 | 0.78 | g10711<br>2 | 100 | 114 | 0.84 | mucin,<br>trache<br>al<br>(AMN-<br>22) -<br>human<br>(fragm<br>ent)<br>[] |  |
| 160928 | ATU022<br>868 | ATL8C4<br>6680:9<br>0..130<br>3  | gap2 | ATCEA4<br>S11628                | 85 | ATL8C4<br>6680:1<br>303..9<br>0  | 0.78 |             |     |     |      |   |  |
| 160929 | ATU022<br>869 | ATL8C1<br>1442:3<br>87..63<br>0  | gap2 | ATCEA4<br>S1129                 | 85 | ATL8C1<br>1442:3<br>87..63<br>0  | 0.78 |             |     |     |      |   |  |
| 160930 | ATU022<br>870 | ATL8C4<br>6269:5<br>83..1        | gap2 | ATCEA4<br>S29496                | 85 | ATL8C4<br>6269:5<br>39..23<br>3  | 0.77 |             |     |     |      |   |  |
| 160931 | ATU022<br>871 | ATL8C3<br>9890:4<br>62..11<br>02 | gap2 | ATCEA4<br>S344                  | 85 | ATL8C3<br>9890:4<br>62..11<br>02 | 0.74 |             |     |     |      |   |  |
| 160932 | ATU022<br>872 | ATL8S9<br>847:17<br>3..454       | gap2 | ATCEA4<br>C6295_1               | 85 | ATL8S9<br>847:31<br>2..390       | 0.72 |             |     |     |      |   |  |
| 160933 | ATU022<br>873 | ATL8C4<br>6915:9<br>31..44<br>6  | gap2 | ATCEA4<br>C11734<br>5_1         | 85 | ATL8C4<br>6915:9<br>00..47<br>3  | 0.72 |             |     |     |      |   |  |



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| 160934 | ATU022<br>874 | ATL8C3<br>9016:1<br>22..37<br>4  | gap2 | ATCEA4<br>C732_3                                 | 85            | ATL8C3<br>9016:1<br>25..37<br>4  | 0.71 |              |     |      |              |  |
| 160935 | ATU022<br>875 | ATL8C1<br>5434:7<br>00..1        | gap2 | ATCEA4<br>S2909                                  | 85            | ATL8C1<br>5434:7<br>00..15<br>0  | 0.70 |              |     |      |              |  |
| 160936 | ATU022<br>876 | ATL8C3<br>0395:1<br>24..14<br>71 | gap2 | ATCEA4<br>S8689                                  | 85            | ATL8C3<br>0395:1<br>73..14<br>71 | 0.70 |              |     |      |              |  |
| 160937 | ATU022<br>877 | ATL8C6<br>257:51<br>9..169<br>1  | gap2 | ATCEA4<br>C43870<br>_1                           | 85            | ATL8C6<br>257:51<br>9..167<br>7  | 0.69 |              |     |      |              |  |
| 160938 | ATU022<br>878 | ATL8C1<br>577:15<br>93..42<br>62 | gap2 | ATCEA4<br>C21292<br>_1                           | 84            | ATL8C1<br>577:29<br>41..42<br>22 | 0.69 | g48368<br>97 | 100 | 1627 | 5.6e-<br>121 | (AC007<br>369)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 160939 | ATU022<br>879 | ATL8C1<br>7457:1<br>..1348       | gap2 | ATCEA4<br>S8118                                  | 85            | ATL8C1<br>7457:3<br>72..13<br>48 | 0.69 |              |     |      |              |  |
| 160940 | ATU022<br>880 | ATL8C3<br>9184:1<br>..623        | gap2 | ATCEA4<br>C74638<br>_1                           | 85            | ATL8C3<br>9184:3<br>12..60<br>3  | 0.69 |              |     |      |              |  |
| 160941 | ATU022<br>881 | ATL8C1<br>1366:1<br>..870        | gap2 | ATCEA4<br>C18601<br>_1,<br>ATCEA4<br>S30509<br>, | 85,<br>83, 82 | ATL8C1<br>1366:1<br>93..87<br>0  | 0.68 |              |     |      |              |  |

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| 160942 | ATU022<br>882 | ATL8C3<br>5728:1<br>765..9<br>53 | gap2 | ATCEA4<br>C18601<br>3                | 85     | ATL8C3<br>5728:1<br>566..1<br>155 | 0.66 |  |  |  |  |  |  |  |  |  |  |
| 160943 | ATU022<br>883 | ATL8S1<br>217:27<br>9..623       | gap2 | ATCEA4<br>S4078                      | 85     | ATL8S1<br>217:27<br>9..587        | 0.65 |  |  |  |  |  |  |  |  |  |  |
| 160944 | ATU022<br>884 | ATL8C2<br>1438:1<br>868..3<br>07 | gap2 | ATCEA4<br>C46238<br>_1               | 85     | ATL8C2<br>1438:1<br>545..3<br>07  | 0.65 |  |  |  |  |  |  |  |  |  |  |
| 160945 | ATU022<br>885 | ATL8C1<br>4442:1<br>892..3<br>74 | gap2 | ATCEA4<br>C45442<br>_1               | 85     | ATL8C1<br>4442:1<br>693..4<br>39  | 0.64 |  |  |  |  |  |  |  |  |  |  |
| 160946 | ATU022<br>886 | ATL8C4<br>112:77<br>4..1         | gap2 | ATCEA4<br>C369_1                     | 85     | ATL8C4<br>112:62<br>8..103        | 0.62 |  |  |  |  |  |  |  |  |  |  |
| 160947 | ATU022<br>887 | ATL8C8<br>856:20<br>28..16<br>13 | gap2 | ATCEA4<br>S10526                     | 85     | ATL8C8<br>856:19<br>65..16<br>13  | 0.62 |  |  |  |  |  |  |  |  |  |  |
| 160948 | ATU022<br>888 | ATL8C3<br>1909:6<br>11..31<br>97 | gap2 | ATCEA4<br>C83_2,<br>ATCEA4<br>S17308 | 85, 82 | ATL8C3<br>1909:3<br>197..6<br>11  | 0.61 |  |  |  |  |  |  |  |  |  |  |
| 160949 | ATU022<br>889 | ATL8C1<br>1249:8<br>63..1        | gap2 | ATCEA4<br>C397_1                     | 85     | ATL8C1<br>1249:5<br>58..24<br>0   | 0.61 |  |  |  |  |  |  |  |  |  |  |
| 160950 | ATU022<br>890 | ATL8S2<br>345:91<br>..548        | gap2 | ATCEA4<br>C85172<br>_1               | 85     | ATL8S2<br>345:91<br>..387         | 0.58 |  |  |  |  |  |  |  |  |  |  |
| 160951 | ATU022<br>891 | ATL8C4<br>6820:6<br>78..1        | gap2 | ATCEA4<br>C704_1                     | 85     | ATL8C4<br>6820:5<br>73..19<br>7   | 0.58 |  |  |  |  |  |  |  |  |  |  |

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| 160952 | ATU022<br>892 | ATL8C6<br>825:72<br>3..145<br>0  | gap2 | ATCEA4<br>S29564 | 85 | ATL8C6<br>825:72<br>3..145<br>0  | 0.56 |                               |            |              |                              |  |
| 160953 | ATU022<br>893 | ATL8C7<br>917:41<br>8..659<br>5  | gap2 | ATCEA4<br>S179   | 84 | ATL8C7<br>917:41<br>8..659<br>5  | 0.55 | g47739<br>20,<br>g47739<br>10 | 100,<br>40 | 2634,<br>208 | 8.0e-<br>256,<br>7.9e-<br>18 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 160954 | ATU022<br>894 | ATL8C3<br>3880:3<br>922..1<br>85 | gap2 | ATCEA4<br>S81    | 84 | ATL8C3<br>3880:3<br>922..1<br>85 | 0.55 | g45672<br>96                  | 100        | 2324         |                              | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |

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| 160955 | ATU022<br>895 | ATL8C3<br>4746:5<br>35..63<br>9  | gap2 | ATCEA4<br>S14285   | 85                   | ATL8C3<br>4746:5<br>35..63<br>9  | 0.55 |              |     |     |             |  |  |
| 160956 | ATU022<br>896 | ATL8C8<br>802:10<br>6..212<br>8  | gap2 | ATCEA4<br>S7927  | 85                   | ATL8C8<br>802:10<br>6..212<br>8  | 0.54 |              |     |     |             |  |  |
| 160957 | ATU022<br>897 | ATL8C4<br>0375:6<br>15..78<br>1  | gap2 | ATCEA4<br>S10674   | 85                   | ATL8C4<br>0375:6<br>38..75<br>7  | 0.52 |              |     |     |             |  |  |
| 160958 | ATU022<br>898 | ATL8S3<br>889:13<br>7..422       | gap2 | ATCEA4<br>C20197<br>1,<br>ATCEA4<br>S18447                             | 85, 84               | ATL8S3<br>889:13<br>7..382       | 0.51 |              |     |     |             |  |  |
| 160959 | ATU022<br>899 | ATL8C1<br>0028:5<br>32..14<br>59 | gap2 | ATCEA4<br>S20806   | 85                   | ATL8C1<br>0028:1<br>459..5<br>32 | 0.51 |              |     |     |             |  |  |
| 160960 | ATU022<br>900 | ATL8C1<br>376:88<br>6..244       | gap2 | ATCEA4<br>S4021  | 84                   | ATL8C1<br>376:87<br>5..338       | 0.50 | g45824<br>54 | 100 | 741 | 1.5e-<br>73 | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 160961 | ATU022<br>901 | ATL8C6<br>031:73<br>5..150       | gap2 | ATCEA4<br>C793 2<br>-<br>, ATCEA4<br>S35298<br>, ATCEA4<br>S34204<br>, | 85,<br>83,<br>83, 82 | ATL8C6<br>031:18<br>4..521       | 0.49 |              |     |     |             |  |  |



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| 161013 | ATU022<br>953 | ..3270   |      |                       |    |  |  |  |  | g47739<br>08 |  |  | 2.9e-<br>174 | putative<br>Athila<br>retroel<br>ement<br>ORF1<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161014 | ATU022<br>954 | ATL8C2<br>8681:1<br>..290<br>ATL8C4<br>8971:1<br>334..1<br>463 | gap2 | ATCEA4<br>C13033<br>1 | 85 |  |  |  |  |              |  |  |              |   |
| 161015 | ATU022<br>955 | ATL8S2<br>005:47<br>1..195                                     | gap2 | ATCEA4<br>C5756<br>1  | 85 |  |  |  |  |              |  |  |              |   |
| 161016 | ATU022<br>956 | ATL8S2<br>4581:1<br>..491                                      | gap2 | ATCEA4<br>C255_1      | 85 |  |  |  |  |              |  |  |              |   |
| 161017 | ATU022<br>957 | ATL8C4<br>4516:3<br>02..46<br>7                                | gap2 | ATCEA4<br>S1293       | 85 |  |  |  |  |              |  |  |              |   |





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| 161052 | ATU022<br>992 | 343..2<br>430<br>ATL8C4<br>0212:9<br>28..17<br>8 | gap2 | ATCEA4<br>S178,<br>ATCEA4<br>S253,<br>ATCEA4<br>S11510 | 85,<br>85, 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161053 | ATU022<br>993 | ATL8C9<br>908:10<br>19..87<br>1                  | gap2 | ATCEA4<br>C2803_1                                      | 85            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161054 | ATU022<br>994 | ATL8C2<br>1416:1<br>255..9<br>55                 | gap2 | ATCEA4<br>S25028                                       | 85            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161055 | ATU022<br>995 | ATL8C3<br>3373:4<br>20..29<br>6                  | gap2 | ATCEA4<br>S178   | 85            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161056 | ATU022<br>996 | ATL8S2<br>2722:5<br>45..24<br>9                  | gap2 | ATCEA4<br>S11284                                       | 85            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161057 | ATU022<br>997 | ATL8C3<br>7768:3<br>030..2<br>570                | gap2 | ATCEA4<br>S14088                                       | 85            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161058 | ATU022<br>998 | ATL8C1<br>2654:6<br>05..42<br>1                  | gap2 | ATCEA4<br>S26702                                       | 85            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161059 | ATU022<br>999 | ATL8S1<br>8148:1<br>25..1                        | gap2 | ATCEA4<br>S18184<br>,<br>ATCEA4<br>S28947              | 85, 83        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 161060 | ATU023<br>000 | ATL8C3<br>4164:1<br>813..8                       | gap2 | ATCEA4<br>S14600                                       | 85            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

























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| 161258 | ATU023<br>198 | ATL8C2<br>827:38<br>34..1        | gap2 | ATCEA4<br>S11092 | 84 | ATL8C2<br>827:38<br>00..95       | 0.68 | g47411<br>95 | 99 | 2642 | 1.3e-<br>167 | N)<br>[Crice<br>tulus<br>longic<br>audatu<br>s]<br>(AL049<br>746)<br>ABC<br>transp<br>orter-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                |
| 161259 | ATU023<br>199 | ATL8C5<br>312:13<br>19..26<br>52 | gap2 | ATCEA4<br>S8011  | 84 | ATL8C5<br>312:16<br>04..26<br>52 | 0.53 | g38764<br>65 | 99 | 205  | 1.8e-<br>15  | (Z8107<br>1)<br>predic<br>ted<br>using<br>Genefi<br>nder;<br>Simila<br>rity<br>to<br>Human<br>small<br>nuclea<br>r<br>ribonu<br>cleopr<br>oteins<br>E<br>(SW:P0<br>8578);<br>CDNA<br>EST |

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| 161260 | ATU023<br>200 | ATL8C1<br>4072:5<br>685..5<br>162 | gap2 | ATCEA4<br>S31926 | 84 |                                  |      |  |  | g48352<br>31 | 99 | 541  | 9.5e-<br>41  | yk375g<br>7.3<br>comes<br>from<br>this<br>gene;<br>cDNA<br>EST<br>yk375g<br>7.5<br>comes<br>from<br>this<br>gene;<br>cDNA<br>EST<br>yk435f<br>5.3<br>comes<br>from<br>this<br>gene;<br>... |
| 161261 | ATU023<br>201 | ATL8C2<br>9893:4<br>29..27<br>65  | gap2 | ATCEA4<br>S32017 | 84 | ATL8C2<br>9893:4<br>29..27<br>65 | 0.63 |  |  | g22447<br>52 | 97 | 1469 | 2.4e-<br>153 | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi  |

|        |               |                                    |      |                        |    |                                  |      |  |  |              |    |      |              |   |
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| 161262 | ATU023<br>202 | ATL8C1<br>4501:4<br>492..1<br>2562 | gap2 | ATCEA4<br>S203         | 84 |                                  |      |  |  | g36953<br>96 | 94 | 1616 | 2.5e-<br>140 | (AF096<br>372)<br>ns<br>contain<br>similarity<br>to<br>Arabid<br>opsis<br>thaliana<br>retro<br>transpo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thaliana] |
| 161263 | ATU023<br>203 | ATL8C1<br>7341:1<br>641..1         | gap2 | ATCEA4<br>C32583<br>_1 | 84 | ATL8C1<br>7341:1<br>477..1<br>55 | 0.72 |  |  | g31842<br>81 | 89 | 1440 | 4.3e-<br>120 | (AC004<br>136)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thaliana]   |
| 161264 | ATU023<br>204 | ATL8C2<br>0295:1<br>762..1         | gap2 | ATCEA4<br>S81          | 84 |                                  |      |  |  | g45672<br>96 | 88 | 2022 | 2.1e-<br>196 | (AC006<br>918)<br>putati<br>ve<br>Athila  |



|        |               |                                  |      |  |        |                                  |      |              |    |      |              |  |
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| 161267 | ATU023<br>207 | ATL8C3<br>6648:1<br>530..2<br>63 | gap2 | ATCEA4<br>S31224<br>,<br>ATCEA4<br>S4445 | 84, 82 | ATL8C3<br>6648:1<br>463..2<br>63 | 0.54 | g31281<br>87 | 83 | 2038 | 1.9e-<br>204 | [Arabi<br>dopsis<br>thalia<br>na];<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161268 | ATU023<br>208 | ATL8C4<br>6720:2<br>521..1       | gap2 | ATCEA4<br>S4756                          | 84     | ATL8C4<br>6720:2<br>521..6<br>37 | 0.90 | g43888<br>23 | 82 | 510  | 1.6e-<br>36  | (AC004<br>521)<br>putati<br>ve<br>beta-<br>glucos<br>idase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>528)<br>hypothe<br>tical  |

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| 161269 | ATU023<br>209 | ATL8C3<br>7199:1<br>..2090 | gap2 | ATCEA4<br>S3631                                  | 84     | ATL8C3<br>7199:2<br>93..20<br>89 | 0.65 | g35229<br>56 | 82 | 611  |             | protein<br>[Arabi<br>dopsis<br>thalia<br>nal<br>(AC004<br>411)<br>putati<br>ve<br>pectin<br>acetyl<br>estera<br>se<br>precur<br>sor<br>[Arabi<br>dopsis<br>thalia<br>nal<br>(AF069<br>468)<br>sterol<br>-C5-<br>desatu<br>rase<br>[Arabi<br>dopsis<br>thalia<br>nal<br>(AJ011<br>916)<br>hypoth<br>etical<br>protein<br>[Homo<br>sapien<br>s]<br>(Z9970 |
| 161270 | ATU023<br>210 | ATL8C1<br>1657:1<br>062..1 | gap2 | ATCEA4<br>C267_1                                 | 84     | ATL8C1<br>1657:1<br>046..3<br>8  | 0.65 | g42347<br>68 | 80 | 921  | 4.0e-<br>84 |   |
| 161271 | ATU023<br>211 | ATL8C5<br>918:10<br>40..1  | gap2 | ATCEA4<br>C21055<br>1,<br>ATCEA4<br>C70917<br>_1 | 84, 82 |                                  |      | g41280<br>29 | 79 | 214  |             |   |
| 161272 | ATU023        | ATL8C1                     | gap2 | ATCEA4   | 84     | ATL8C1                           | 0.62 | g40068       | 75 | 1115 | 5.5e-       | (Z9970  |

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| 161273 | ATU023<br>213 | ATL8C4<br>2887:7<br>50..24<br>2  | gap2 | ATCEA4<br>S30003  | 84            |  | 055:12<br>09..1                 | S30793 |      | 055:12<br>03..20<br>6 |  | 65           |    |      |  | 126          | 7)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 161274 | ATU023<br>214 | ATL8C4<br>7046:9<br>84..1        | gap2 | ATCEA4<br>C1076_<br>2   | 84            |  | ATL8C4<br>7046:9<br>84..89      |        | 0.88 |                       |  | g24987<br>32 | 72 | 780  |  | 1.8e-<br>136 | PROBAB<br>LE<br>NADP-<br>DEPEND<br>ENT<br>OXIDOR<br>EDUCTA<br>SE P2<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161275 | ATU023<br>215 | ATL8C4<br>4850:1<br>55..13<br>05 | gap2 | ATCEA4<br>C4851_<br>1,<br>ATCEA4<br>S31042<br>,<br>ATCEA4<br>S27859 | 84,<br>82, 82 |  | ATL8C4<br>4850:1<br>58..97<br>6 |        | 0.87 |                       |  | g34510<br>68 | 71 | 664  |  | 1.7e-<br>43  | (AL031<br>326)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 161276 | ATU023        | ATL8C4                           | gap2 | ATCEA4  | 84            |  | ATL8C4                          |        | 0.48 |                       |  | g33778       | 71 | 2826 |  | 4.5e-        | (AF076   |





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| 161279 | ATU023<br>219 | ATL8C1<br>8305:6<br>90..1  | gap2 | ATCEA4<br>C375_3                    | 84     | ATL8C1<br>8305:2<br>54..85       | 0.68 | g23448<br>90 | 67 | 528  | 7.6e-<br>50  | (AC002<br>388)<br>TINY<br>transc<br>riptio<br>n<br>factor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 161280 | ATU023<br>220 | ATL8C4<br>886:11<br>90..1  | gap2 | ATCEA4<br>S11243                    | 84     |                                  |      | g13084<br>6  | 67 | 263  | 6.5e-<br>25  | BASIC<br>FORM<br>OF<br>PATHOG<br>ENESIS<br>-<br>RELATE<br>D<br>PROTEI<br>N 1<br>PRECUR<br>SOR<br>(PRP<br>1)<br>[Nicot<br>iana<br>tabacu<br>m] |
| 161281 | ATU023<br>221 | ATL8C2<br>5720:1<br>..3030 | gap2 | ATCEA4<br>S6271,<br>ATCEA4<br>S2664 | 84, 82 | ATL8C2<br>5720:1<br>41..30<br>05 | 0.70 | g28530<br>78 | 66 | 2759 | 3.5e-<br>270 | (AL021<br>768)<br>TMV<br>resist<br>ance<br>protei<br>n N-<br>like<br>[Arabi<br>dopsis   |

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| 161282 | ATU023<br>222 | ATL8C3<br>2363:5<br>066..1<br>149 | gap2 | ATCEA4<br>S27391       | 84 | ATL8C3<br>2363:5<br>003..1<br>149 | 0.50 | g43887<br>32 | 66     | 395  | 2.5e-<br>17 | thalia<br>na]<br>(AC006<br>413)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF 2<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161283 | ATU023<br>223 | ATL8C1<br>7681:1<br>..1455        | gap2 | ATCEA4<br>C97274<br>_1 | 84 | ATL8C1<br>7681:3<br>26..11<br>20  | 0.85 | g43357<br>37 | 65     | 341  | 1.6e-<br>28 | (AC006<br>248)<br>putati<br>ve<br>serine<br>/threo<br>nine<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 161284 | ATU023<br>224 | ATL8C1<br>391:27<br>33..64<br>4   | gap2 | ATCEA4<br>S178         | 84 | ATL8C1<br>391:27<br>33..15<br>38  | 0.82 | g47739<br>10 | 65     | 440  | 6.1e-<br>24 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161285 | ATU023        | ATL8C4                            | gap2 | ATCEA4                 | 84 | ATL8C4                            | 0.58 | g42630       | 65, 51 | 422, | 4.1e-       | (AC005   |

|        |               |                                   |      |                         |    |                                   |  |                     |    |      |             |   |
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| 161286 | 225           | 9866:3<br>828..1                  |      | S33179                  |    | 9866:3<br>754..4<br>28            |  | 62,<br>g44328<br>07 |    | 3972 | 41,<br>0.0  | 142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>570)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        | ATU023<br>226 | ATL8C4<br>0951:5<br>50..1         | gap2 | ATCEA4<br>S14586        | 84 |                                   |  | g47411<br>86        | 64 | 79   | 1.2e-<br>07 | (AL049<br>746)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161287 | ATU023<br>227 | ATL8C2<br>3354:4<br>115..2<br>173 | gap2 | ATCEA4<br>C11926<br>3_1 | 84 | ATL8C2<br>3354:3<br>494..2<br>173 |  | g38602<br>62        | 62 | 961  | 1.8e-<br>98 | (AC005<br>824)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161288 | ATU023        | ATL8C3                            | gap2 | ATCEA4                  | 84 |                                   |  | g47739              | 62 | 318  | 2.8e-       | (AF147  |



|        |               |                                 |      |                        |    |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|------|------------------------|----|---------------------------------|------|--------------|----|-----|-------------|--|
| 161291 | ATU023<br>231 | ATL8C4<br>0247:1<br>..620       | gap2 | ATCEA4<br>S12878       | 84 | ATL8C4<br>0247:9<br>3..620      | 0.42 | 945672<br>93 | 61 | 897 | 3.4e-<br>83 | na]<br>(AC006<br>918)<br>putati<br>ve<br>Athila<br>retroeo<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161292 | ATU023<br>232 | ATL8C8<br>106:17<br>35..79<br>7 | gap2 | ATCEA4<br>S33179       | 84 |                                 |      | 942630<br>62 | 60 | 409 | 3.0e-<br>42 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161293 | ATU023<br>233 | ATL8C4<br>5622:1<br>..888       | gap2 | ATCEA4<br>C52106<br>_1 | 84 | ATL8C4<br>5622:1<br>34..88<br>6 | 0.81 | 928326<br>72 | 58 | 275 | 2.9e-<br>24 | (AL021<br>712)<br>nifU-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161294 | ATU023<br>234 | ATL8C3<br>3209:1<br>..1101      | gap2 | ATCEA4<br>C28885<br>_2 | 84 | ATL8C3<br>3209:1<br>84..87<br>6 | 0.88 | 928299<br>27 | 57 | 551 | 1.6e-<br>28 | (AC002<br>291)<br>Unknow<br>n<br>protei  |

|        |               |                                   |      |                        |    |                                   |      |              |    |      |              |   |
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| 161295 | ATU023<br>235 | ATL8C4<br>0891:8<br>23..15<br>77  | gap2 | ATCEA4<br>S747         | 84 | ATL8C4<br>0891:8<br>32..15<br>58  | 0.68 | 945811<br>42 | 56 | 283  | 7.2e-<br>31  | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>919)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161296 | ATU023<br>236 | ATL8C3<br>5282:5<br>441..8<br>521 | gap2 | ATCEA4<br>S13901       | 84 | ATL8C3<br>5282:5<br>441..8<br>521 | 0.48 | 947340<br>13 | 56 | 1813 | 5.9e-<br>174 | (AC007<br>112)<br>putati<br>ve<br>TNPI<br>of the<br>Tam1<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 161297 | ATU023<br>237 | ATL8S1<br>3032:5<br>50..1         | gap2 | ATCEA4<br>C17863<br>_1 | 84 |                                   |      | 943143<br>76 | 54 | 236  | 1.5e-<br>25  | (AC006<br>232)<br>simila<br>r to<br>PIG-L<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161298 | ATU023<br>238 | ATL8C4<br>8665:2<br>737..1        | gap2 | ATCEA4<br>S4422        | 84 | ATL8C4<br>8665:2<br>705..3        | 0.47 | 930636<br>91 | 53 | 610  | 7.5e-<br>63  | (AL022<br>537)<br>putati  |

|        |               |                                  |      |                        |    |                                  | 09   |              |    |      |  |   | ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|--------|---------------|----------------------------------|------|------------------------|----|----------------------------------|------|--------------|----|------|--|---|--|
| 161299 | ATU023<br>239 | ATL8C2<br>938:50<br>5..1         | gap2 | ATCEA4<br>C35088<br>_1 | 84 | ATL8C2<br>938:37<br>5..49        | 0.91 | g41851<br>43 | 52 | 334  | 1.2e-<br>35  | (AC005<br>724)<br>putati<br>ve<br>signal<br>recogn<br>ition<br>partic<br>le<br>recept<br>or<br>beta<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 161300 | ATU023<br>240 | ATL8C1<br>4802:1<br>..972        | gap2 | ATCEA4<br>C17485<br>_1 | 84 | ATL8C1<br>4802:1<br>11..71<br>5  | 0.79 | g38603<br>19 | 52 | 857  | 1.4e-<br>76  | (AJ012<br>686)<br>nucleo<br>lar<br>protei<br>n<br>[Cicer<br>arieti<br>num]  |  |
| 161301 | ATU023<br>241 | ATL8C3<br>7240:2<br>268..8<br>25 | gap2 | ATCEA4<br>C50487<br>_1 | 84 | ATL8C3<br>7240:2<br>037..8<br>25 | 0.69 | g45859<br>66 | 52 | 1032 | (AC005<br>287)<br>Putati<br>ve<br>dihydr<br>olipoa |   |  |



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| 161302 | ATU023<br>242 | ATL8C3<br>0898:5<br>62..15<br>73 | gap2 | ATCEA4<br>S15209      | 84 |                            |      |  |  | g48503<br>95 | 51 | 434 | 1.1e-<br>36 | (AC007<br>357)<br>EST<br>gb N37<br>870<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161303 | ATU023<br>243 | ATL8S2<br>1577:3<br>82..1        | gap2 | ATCEA4<br>C9126_<br>1 | 84 | ATL8S2<br>1577:8<br>8..238 | 0.73 |  |  | g13635<br>26 | 50 | 306 | 2.0e-<br>24 | plasto<br>quinol<br>--<br>plasto<br>cyanin<br>reduct<br>ase<br>(EC<br>1.10.9<br>9.1)<br>cytoch<br>rome<br>b6 -<br>maize<br>chloro<br>plast<br>[Zea<br>mays] |
| 161304 | ATU023        | ATL8C1                           | gap2 | ATCEA4                | 84 | ATL8C1                     | 0.72 |  |  | g30565       | 50 | 806 | 5.0e-       | (AC004  |

|        |                        |                                   |        |   |                        |   |                     |    |      |  |
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| 244    | 2778:2<br>590..6<br>49 |                                   | S33396 |   | 2778:2<br>540..6<br>90 |   | 92                  |    | 75   | 255)<br>T1F9.1<br>3<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161305 | ATU023<br>245          | ATL8C2<br>1905:6<br>458..4<br>560 | gap2   | ATCEA4<br>S15577<br>,<br>ATCEA4<br>S12925 | 84, 83                 |   | g45444<br>33        | 50 | 75   | (AC006<br>955)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 161306 | ATU023<br>246          | ATL8C3<br>0980:3<br>11..14<br>60  | gap2   | ATCEA4<br>S1006                           | 84                     | ATL8C3<br>0980:4<br>08..60<br>2,<br>ATL8C3<br>0980:1<br>253..1<br>074 | 0.90,<br>0.91<br>63 | 49 | 1502 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 161307 | ATU023<br>247          | ATL8C3<br>784:14<br>68..1         | gap2   | ATCEA4<br>C638_1                          | 84                     | ATL8C3<br>784:14<br>23..10<br>5                                       | 0.80<br>80          | 49 | 1255 | (AC002<br>396)<br>glucos<br>e-6-<br>phosph<br>ate 1-<br>dehydr<br>ogenas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 161308 | ATU023<br>248 | ATL8C4<br>3266:1<br>..1116        | gap2 | ATCEA4<br>C52221<br>_1 | 84 | ATL8C4<br>3266:2<br>28..87<br>8   | 0.96 | g35598<br>05                  | 48     | 637          | 6.4e-<br>53                  | (AJ006<br>787)<br>putati<br>ve<br>phytoc<br>helati<br>n<br>synthe<br>tase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161309 | ATU023<br>249 | ATL8C4<br>2407:1<br>205..4<br>288 | gap2 | ATCEA4<br>S126         | 84 | ATL8C4<br>2407:1<br>592..4<br>285 | 0.64 | g41153<br>61,<br>g42638<br>31 | 48, 31 | 206,<br>1351 | 1.6e-<br>17,<br>7.1e-<br>122 | (AC005<br>957)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161310 | ATU023<br>250 | ATL8S1<br>2778:1<br>..584         | gap2 | ATCEA4<br>C11750<br>_1 | 84 |                                   |      | g44690<br>03                  | 48     | 141          | 0.0007<br>1                  | (AL035<br>602)<br>putati<br>ve   |

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| 161311 | ATU023<br>251 | ATL8C9<br>726:77<br>9..1   | gap2 | ATCEA4<br>S29531                        | 84     |                                  |      |  |  |  | g29110<br>49 | 48 | 1005 | 1.4e-<br>90  | protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161312 | ATU023<br>252 | ATL8C6<br>390:1.<br>.1166  | gap2 | ATCEA4<br>C84570<br>_1                  | 84     | ATL8C6<br>390:14<br>0..885       |      |  |  |  | g22890<br>11 | 47 | 1770 | 9.7e-<br>176 | (AC002<br>335)<br>MYB<br>transc<br>riptio<br>n<br>factor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161313 | ATU023<br>253 | ATL8C1<br>0772:1<br>..1183 | gap2 | ATCEA4<br>C3437_1,<br>ATCEA4<br>C3437_5 | 84, 84 | ATL8C1<br>0772:1<br>139..2<br>96 | 0.54 |  |  |  | g23697<br>14 | 47 | 1746 | 6.0e-<br>180 | (Z9717<br>8)<br>elonga<br>tion<br>factor<br>2<br>[Beta<br>vulgar<br>is]                                 |

|        |               |                                  |      |  |        |                                  |      |              |    |     |             |   |
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| 161314 | ATU023<br>254 | ATL8C3<br>816:1.<br>.1462        | gap2 | ATCEA4<br>S8481                            | 84     | ATL8C3<br>816:47<br>6..136<br>9  | 0.90 | g41153<br>81 | 45 | 872 | 3.3e-<br>59 | (AC005<br>967)<br>putati<br>ve<br>limone<br>ne<br>cyclas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 161315 | ATU023<br>255 | ATL8C8<br>118:71<br>6..1         | gap2 | ATCEA4<br>S4551,<br>ATCEA4<br>C18918<br>_1 | 84, 82 |                                  |      | g31842<br>81 | 45 | 739 | 2.8e-<br>68 | (AC004<br>136)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 161316 | ATU023<br>256 | ATL8C3<br>7738:2<br>37..16<br>73 | gap2 | ATCEA4<br>S8484                            | 84     | ATL8C3<br>7738:2<br>37..14<br>22 | 0.74 | g47259<br>43 | 44 | 266 | 1.3e-<br>26 | (AL049<br>730)<br>putati<br>ve<br>adenin<br>e<br>phosph<br>oribos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161317 | ATU023<br>257 | ATL8S1<br>8216:1                 | gap2 | ATCEA4<br>S34635                           | 84, 84 | ATL8S1<br>8216:1                 | 0.55 | g44552<br>03 | 44 | 462 | 5.1e-<br>44 | (AL035<br>440)  |

|        |               |                           |      |                        |    |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------|------|------------------------|----|---------------------------------|------|--------------|----|-----|-------------|--|
| 161318 | ATU023<br>258 | ..582                     |      | ATCEA4<br>C54462<br>_2 | 84 | ATL8C3<br>3914:2<br>68..94<br>6 | 0.58 | g24628<br>22 | 42 | 199 |             | putative<br>protein<br>[Arabidopsis<br>thaliana]   |
| 161319 | ATU023<br>259 | ATL8C1<br>7511:1<br>..556 | gap2 | ATCEA4<br>S23201       | 84 | ATL8C1<br>7511:1<br>03..42<br>9 | 0.97 | g27390<br>46 | 41 | 234 | 2.0e-<br>21 | (AF024<br>652)<br>polyphospho-<br>sitol<br>binding<br>protein<br>Ssh2p<br>[Glycine<br>max] |
| 161320 | ATU023<br>260 | ATL8C9<br>693:79<br>2..1  | gap2 | ATCEA4<br>S32038       | 84 | ATL8C9<br>693:75<br>0..259      | 0.89 | g26424<br>50 | 41 | 605 | 5.3e-<br>61 | (AC002<br>391)<br>putative<br>metal<br>ion<br>transport<br>protein                         |

|        |               |                                 |      |                         |    |                                  |      |              |    |     |             |   |
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| 161321 | ATU023<br>261 | ATL8C4<br>6853:1<br>..1423      | gap2 | ATCEA4<br>C44776<br>_1  | 84 | ATL8C4<br>6853:3<br>93..14<br>21 | 0.66 | g28424<br>77 | 41 | 847 | 2.5e-<br>75 | (Nramp<br>)<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161322 | ATU023<br>262 | ATL8C3<br>9913:8<br>31..28<br>9 | gap2 | ATCEA4<br>C11633<br>5_1 | 84 | ATL8C3<br>9913:7<br>83..29<br>6  | 0.65 | g39280<br>93 | 41 | 317 | 5.8e-<br>32 | (AC005<br>770)<br>IVR-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 161323 | ATU023<br>263 | ATL8C3<br>8622:1<br>..459       | gap2 | ATCEA4<br>C81453<br>_1  | 84 | ATL8C3<br>8622:1<br>18..45<br>7  | 0.77 | g30333<br>95 | 40 | 303 | 1.7e-<br>31 | (AC004<br>238)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 161324 | ATU023<br>264 | ATL8C3<br>6385:1<br>..1217        | gap2 | ATCEA4<br>C7142_2,<br>ATCEA4<br>C7142_1 | 84, 83 | ATL8C3<br>6385:3<br>17..11<br>44 | 0.77 | g12097<br>56 | 39 | 505 | 2.7e-<br>18 | (U4362<br>9)<br>integr<br>al membra<br>ne protei<br>n [Beta<br>vulgar<br>is]              |
| 161325 | ATU023<br>265 | ATL8C1<br>8905:2<br>013..1        | gap2 | ATCEA4<br>S4847                         | 84     | ATL8C1<br>8905:1<br>914..2<br>07 | 0.76 | g34213<br>78 | 39 | 634 | 7.0e-<br>53 | (AF080<br>249)<br>kinesi<br>n-like<br>heavy<br>chain<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161326 | ATU023<br>266 | ATL8C3<br>9140:1<br>227..1        | gap2 | ATCEA4<br>S8768                         | 84     | ATL8C3<br>9140:6<br>05..92       | 0.72 | g27958<br>06 | 39 | 551 | 5.1e-<br>39 | (AC003<br>674)<br>unknow<br>n protei<br>n [Arabi<br>dopsis<br>thalia<br>na]               |
| 161327 | ATU023<br>267 | ATL8C1<br>9404:2<br>575..3<br>089 | gap2 | ATCEA4<br>S12521                        | 84     |                                  |      | g46782<br>17 | 39 | 389 | 3.1e-<br>37 | (AC007<br>134)<br>hypothe<br>tical protei<br>n [Arabi<br>dopsis<br>thalia                 |



|        |               |                            |      |                  |    |                            |      |              |    |      |              |   |
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| 161328 | ATU023<br>268 | ATL8C1<br>7441:1<br>..830  | gap2 | ATCEA4<br>C682_1 | 84 | ATL8C1<br>7441:1<br>5..669 | 0.97 | g37760<br>11 | 38 | 538  | 1.9e-<br>30  | na]<br>(AJ010<br>469)<br>RNA<br>helica<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161329 | ATU023<br>269 | ATL8C2<br>4234:3<br>104..1 | gap2 | ATCEA4<br>S30983 | 84 |                            |      | g45860<br>28 | 37 | 1471 | 3.1e-<br>196 | (AC007<br>109)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>associ<br>ated<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161330 | ATU023<br>270 | ATL8S2<br>849:53<br>2..1   | gap2 | ATCEA4<br>C703_1 | 84 |                            |      | g40494<br>01 | 37 | 174  | 3.0e-<br>09  | (AJ131<br>580)<br>glutat<br>hione<br>transf<br>erases<br>AtGST<br>10<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 161331 | ATU023<br>271 | ATL8C2<br>278:15<br>86..93 | gap2 | ATCEA4<br>S36146 | 84 |                            |      | g41036<br>35 | 37 | 216  | 5.6e-<br>17  | (AF026<br>538)<br>ABA-  |

|        |               |                                   |      |                  |    |                                 |      |  |  |              |    |      |              |  |
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| 161332 | ATU023<br>272 | ATL8C4<br>0671:1<br>204..2<br>879 | gap2 | ATCEA4<br>S11628 | 84 |                                 |      |  |  | g41153<br>61 | 37 | 230  | 1.2e-<br>22  | (AC005<br>957)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161333 | ATU023<br>273 | ATL8C1<br>4539:5<br>306..4<br>570 | gap2 | ATCEA4<br>S12209 | 84 |                                 |      |  |  | g45444<br>55 | 36 | 146  | 3.5e-<br>05  | (AC006<br>592)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161334 | ATU023<br>274 | ATL8C3<br>9146:1<br>..783         | gap2 | ATCEA4<br>S8759  | 84 | ATL8C3<br>9146:4<br>36..72<br>5 | 0.88 |  |  | g17909<br>22 | 35 | 391  | 6.0e-<br>28  | (U7667<br>0)<br>AtDMC1<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 161335 | ATU023<br>275 | ATL8C7<br>341:1.<br>.1153         | gap2 | ATCEA4<br>S34116 | 84 | ATL8C7<br>341:39<br>2..577      | 0.81 |  |  | g31525<br>89 | 35 | 1016 | 1.8e-<br>104 | (AC002<br>986)<br>Strong<br>simila<br>rity   |

|        |               |                                   |      |   |        |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|------|---|--------|-----------------------------------|------|--------------|----|-----|-------------|--|
| 161336 | ATU023<br>276 | ATL8C4<br>3437:5<br>591..3<br>632 | gap2 | ATCEA4<br>S11628<br>,<br>ATCEA4<br>S11817 | 84, 82 | ATL8C4<br>3437:5<br>591..3<br>632 | 0.81 | g46999<br>43 | 35 | 134 |             | to<br>lupeol<br>syntha<br>se<br>gb U49<br>919<br>from<br>A.<br>thalia<br>na<br>(secon<br>d gene<br>in a<br>series<br>of<br>three<br>with<br>simila<br>r<br>homolo<br>gies).<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161337 | ATU023<br>277 | ATL8C4<br>0774:2<br>04..71<br>0   | gap2 | ATCEA4<br>C4500_<br>1                     | 84     |                                   |      | g36081<br>37 | 35 | 388 | 5.6e-<br>31 | (AC007<br>166)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>314)<br>unknow<br>n<br>protei  |

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| 161338 | ATU023<br>278 | ATL8C1<br>577:1.<br>.1395        | gap2 | ATCEA4<br>C15001<br>_1 | 84 | ATL8C1<br>577:13<br>5..116<br>9 | 0.44 | g48368<br>96 | 34 | 1662 | 9.0e-<br>145 | n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161339 | ATU023<br>279 | ATL8C1<br>2598:6<br>16..13<br>03 | gap2 | ATCEA4<br>S5214        | 84 |                                 |      | g27608<br>32 | 34 | 391  | 3.9e-<br>30  | (AC003<br>105)<br>simila<br>r to<br>barley<br>ids-4<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161340 | ATU023<br>280 | ATL8C2<br>02:104<br>9..1         | gap2 | ATCEA4<br>C666_1       | 84 | ATL8C2<br>02:103<br>2..110      | 0.92 | g33343<br>49 | 33 | 812  | 2.4e-<br>86  | GLCYL<br>-TRNA<br>SYNTHE<br>TASE<br>(GLYCI<br>NE--<br>TRNA<br>LIGASE<br>)<br>(GLYRS<br>)                        |

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| 161341 | ATU023<br>281 | ATL8C3<br>5927:1<br>368..2<br>34 | gap2 | ATCEA4<br>C32733<br>_1                     | 84     |  | ATL8C3<br>5927:1<br>228..2<br>34 | 0.68 | g48368<br>07 | 33 | 59  | 0.44        | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF146<br>793)<br>PFT27<br>[Mus<br>muscul<br>us]                         |
| 161342 | ATU023<br>282 | ATL8C1<br>2475:1<br>016..1       | gap2 | ATCEA4<br>S17274                           | 84     |  | ATL8C1<br>2475:9<br>44..43<br>8  | 0.98 | g27958<br>03 | 32 | 407 | 4.2e-<br>40 | (AC003<br>674)<br>putati<br>ve<br>beta-<br>1,3-<br>endogl<br>ucanas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161343 | ATU023<br>283 | ATL8S2<br>0815:1<br>..472        | gap2 | ATCEA4<br>C19145<br>_1                     | 84     |  | ATL8S2<br>0815:2<br>07..39<br>4  | 0.95 | g28646<br>02 | 32 | 272 | 7.9e-<br>25 | (Y1207<br>1)<br>thylak<br>oid<br>lumen<br>rotama<br>se<br>[Spina<br>cia<br>olerac<br>ea]                      |
| 161344 | ATU023<br>284 | ATL8S3<br>0793:4<br>81..1        | gap2 | ATCEA4<br>S4071,<br>ATCEA4<br>C29546<br>_2 | 84, 84 |  | ATL8S3<br>0793:3<br>96..22<br>4  | 0.72 | g37696<br>73 | 32 | 117 | 1.2e-<br>08 | (AF095<br>285)<br>Tic20<br>[Pisum<br>sativu<br>m]   |

|        |               |                                  |      |   |        |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|------|---|--------|----------------------------------|------|--------------|----|-----|-------------|--|
| 161345 | ATU023<br>285 | ATL8C1<br>7123:2<br>73..32<br>30 | gap2 | ATCEA4<br>S11628<br>,<br>ATCEA4<br>S203 | 84, 83 | ATL8C1<br>7123:2<br>73..30<br>91 | 0.71 | g42635<br>45 | 32 | 618 | 4.6e-<br>28 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161346 | ATU023<br>286 | ATL8C1<br>0389:6<br>34..1        | gap2 | ATCEA4<br>C8099_1                       | 84     |                                  |      | g25296<br>78 | 32 | 592 |             | (AC002<br>535)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161347 | ATU023<br>287 | ATL8C3<br>2823:6<br>86..1        | gap2 | ATCEA4<br>C27600_1                      | 84     |                                  |      | g46783<br>10 | 31 | 769 | 1.6e-<br>67 | (AL049<br>655)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 161348 | ATU023<br>288 | ATL8C2<br>6582:1<br>..2368       | gap2 | ATCEA4<br>S17068                        | 84     |                                  |      | g32528<br>11 | 31 | 187 | 2.6e-<br>10 | (AC004<br>705)<br>hypoth<br>etical<br>protei<br>n  |

|        |               |                                 |      |  |        |                                 |      |              |    |      |             |  |
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| 161349 | ATU023<br>289 | ATL8C1<br>0975:1<br>450..1      | gap2 | ATCEA4<br>S14438                               | 84     | ATL8C1<br>0975:9<br>18..57<br>6 | 0.99 | 923427<br>24 | 30 | 297  | 1.0e-<br>25 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC002<br>341)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161350 | ATU023<br>290 | ATL8C3<br>2039:7<br>22..1       | gap2 | ATCEA4<br>S15092<br>,<br>ATCEA4<br>C1940_<br>1 | 84, 83 |                                 |      | 936390<br>89 | 30 | 1104 | 4.0e-<br>89 | (AF090<br>445)<br>phosph<br>olipas<br>e D1<br>[Brass<br>ica<br>olerac<br>ea<br>var.<br>capita<br>ta]                   |
| 161351 | ATU023<br>291 | ATL8C1<br>9208:6<br>3..201<br>2 | gap2 | ATCEA4<br>S1716                                | 84     | ATL8C1<br>9208:6<br>3..201<br>2 | 0.99 |              |    |      |             |  |
| 161352 | ATU023<br>292 | ATL8S1<br>5933:2<br>..432       | gap2 | ATCEA4<br>S22422                               | 84     | ATL8S1<br>5933:1<br>12..18<br>3 | 0.98 |              |    |      |             |  |
| 161353 | ATU023<br>293 | ATL8C6<br>990:11<br>46..82<br>7 | gap2 | ATCEA4<br>S1007                                | 84     | ATL8C6<br>990:10<br>30..82<br>7 | 0.97 |              |    |      |             |  |
| 161354 | ATU023<br>294 | ATL8C8<br>923:48                | gap2 | ATCEA4<br>C18993                               | 84     | ATL8C8<br>923:48                | 0.97 |              |    |      |             |  |

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|--------|---------------|--|------|-----------------------|----|--|--|------|--------------|-----|------|--------------|--|
| 161355 | ATU023<br>295 | 3..1<br>ATL8C4<br>2914:1<br>17..16<br>95 | gap2 | 1<br>ATCEA4<br>S14039 | 83 |  | 3..208<br>ATL8C4<br>2914:1<br>17..16<br>37 | 0.97 | 945875<br>26 | 100 | 1309 | 6.7e-<br>127 | (AC007<br>060)<br>Strong<br>simila<br>rity<br>to<br>F19I3.<br>2 [] |
| 161356 | ATU023<br>296 | ATL8C1<br>096:1.<br>.639                 | gap2 | ATCEA4<br>C25457<br>1 | 84 |  | ATL8C1<br>096:16<br>8..639                 | 0.97 |              |     |      |              |  |
| 161357 | ATU023<br>297 | ATL8C1<br>0381:1<br>964..1<br>493        | gap2 | ATCEA4<br>C34592<br>1 | 84 |  | ATL8C1<br>0381:1<br>825..1<br>653          | 0.96 |              |     |      |              |  |
| 161358 | ATU023<br>298 | ATL8C3<br>373:1.<br>.477                 | gap2 | ATCEA4<br>C49238<br>1 | 84 |  | ATL8C3<br>373:22<br>0..444                 | 0.96 |              |     |      |              |  |
| 161359 | ATU023<br>299 | ATL8S2<br>4274:5<br>98..29<br>5          | gap2 | ATCEA4<br>C7791<br>1  | 84 |  | ATL8S2<br>4274:4<br>47..41<br>2            | 0.96 |              |     |      |              |  |
| 161360 | ATU023<br>300 | ATL8C2<br>4724:1<br>757..3<br>029        | gap2 | ATCEA4<br>C46403<br>1 | 84 |  | ATL8C2<br>4724:3<br>029..1<br>757          | 0.95 |              |     |      |              |  |
| 161361 | ATU023<br>301 | ATL8C1<br>4806:3<br>53..76<br>0          | gap2 | ATCEA4<br>S7351       | 84 |  | ATL8C1<br>4806:3<br>53..76<br>0            | 0.95 |              |     |      |              |  |
| 161362 | ATU023<br>302 | ATL8C2<br>5661:5<br>57..88<br>3          | gap2 | ATCEA4<br>S5875       | 84 |  | ATL8C2<br>5661:6<br>28..86<br>0            | 0.95 |              |     |      |              |  |
| 161363 | ATU023<br>303 | ATL8C4<br>4835:2<br>96..44<br>9          | gap2 | ATCEA4<br>S253        | 84 |  | ATL8C4<br>4835:3<br>80..44<br>9            | 0.95 |              |     |      |              |  |
| 161364 | ATU023        | ATL8S1                                   | gap2 | ATCEA4                | 84 |  | ATL8S1                                     | 0.94 |              |     |      |              |  |



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| 161365 | 304           | 7651:3<br>06..1<br>1            | C63213<br>_1                                   |        | gap2 | ATL8C4<br>6044:8<br>04..25<br>7  | ATL8C4<br>6044:7<br>67..32<br>4  | 0.93 |  |  |  |  |  |  |  |  |  |  |  |
| 161366 | ATU023<br>305 | ATL8C4<br>6044:8<br>04..25<br>7 | ATCEA4<br>S23799                               | 84     | gap2 | ATL8C1<br>5726:7<br>84..1        | ATL8C1<br>5726:7<br>84..52<br>3  | 0.93 |  |  |  |  |  |  |  |  |  |  |  |
| 161367 | ATU023<br>306 | ATL8C1<br>5726:7<br>84..1       | ATCEA4<br>S18650<br>,<br>ATCEA4<br>C771 7      | 84, 82 | gap2 | ATL8C2<br>8903:3<br>60..1        | ATL8C2<br>8903:1<br>72..16       | 0.93 |  |  |  |  |  |  |  |  |  |  |  |
| 161368 | ATU023<br>307 | ATL8C2<br>8903:3<br>60..1       | ATCEA4<br>S13515<br>,<br>ATCEA4<br>C71820<br>1 | 84, 83 | gap2 | ATL8C4<br>5604:8<br>28..1        | ATL8C4<br>5604:8<br>28..85       | 0.92 |  |  |  |  |  |  |  |  |  |  |  |
| 161369 | ATU023<br>308 | ATL8C4<br>5604:8<br>28..1       | ATCEA4<br>C53638<br>1                          | 84     | gap2 | ATL8S2<br>7809:3<br>46..75       | ATL8S2<br>7809:2<br>67..76       | 0.91 |  |  |  |  |  |  |  |  |  |  |  |
| 161370 | ATU023<br>309 | ATL8S2<br>7809:3<br>46..75      | ATCEA4<br>C5442 _<br>3                         | 84     | gap2 | ATL8C4<br>0277:2<br>90..80<br>0  | ATL8C4<br>0277:2<br>90..78<br>8  | 0.90 |  |  |  |  |  |  |  |  |  |  |  |
| 161371 | ATU023<br>310 | ATL8C4<br>0277:2<br>90..80<br>0 | ATCEA4<br>S34413                               | 84     | gap2 | ATL8S3<br>0947:4<br>26..1        | ATL8S3<br>0947:4<br>20..31<br>9  | 0.90 |  |  |  |  |  |  |  |  |  |  |  |
| 161372 | ATU023<br>311 | ATL8S3<br>0947:4<br>26..1       | ATCEA4<br>C18580<br>_1                         | 84     | gap2 | ATL8C2<br>5037:9<br>6..818       | ATL8C2<br>5037:9<br>6..633       | 0.90 |  |  |  |  |  |  |  |  |  |  |  |
| 161373 | ATU023<br>312 | ATL8C2<br>5037:9<br>6..818      | ATCEA4<br>S35170                               | 84     | gap2 | ATL8C3<br>705:27<br>31..20<br>86 | ATL8C3<br>705:26<br>77..22<br>48 | 0.90 |  |  |  |  |  |  |  |  |  |  |  |

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| 161374 | ATU023<br>314 | ATL8C2<br>3263:1<br>94..69<br>0  | gap2 | 1,<br>ATCEA4<br>S8141  | 84 | ATL8C2<br>3263:2<br>47..66<br>7  | 0.89 |     |      |  |  |  |   |
| 161375 | ATU023<br>315 | ATL8C3<br>7175:2<br>793..1<br>48 | gap2 | ATCEA4<br>C236_1       | 83 | ATL8C3<br>7175:2<br>696..1<br>48 | 0.87 | 100 | 1002 |  |  |  | RAS-<br>RELATE<br>D<br>PROTEI<br>N ARA-<br>1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161376 | ATU023<br>316 | ATL8C2<br>1433:5<br>78..94<br>9  | gap2 | ATCEA4<br>S1309        | 84 | ATL8C2<br>1433:6<br>10..93<br>9  | 0.87 |     |      |  |  |  |   |
| 161377 | ATU023<br>317 | ATL8C4<br>0001:4<br>7..653       | gap2 | ATCEA4<br>S178         | 84 | ATL8C4<br>0001:5<br>25..65<br>3  | 0.87 |     |      |  |  |  |   |
| 161378 | ATU023<br>318 | ATL8C4<br>7956:1<br>510..8<br>50 | gap2 | ATCEA4<br>C29587<br>_1 | 84 | ATL8C4<br>7956:1<br>336..8<br>50 | 0.87 |     |      |  |  |  |   |
| 161379 | ATU023<br>319 | ATL8C1<br>2954:1<br>..837        | gap2 | ATCEA4<br>C29279<br>1  | 84 | ATL8C1<br>2954:7<br>1..837       | 0.87 |     |      |  |  |  |   |
| 161380 | ATU023<br>320 | ATL8C3<br>8425:1<br>..973        | gap2 | ATCEA4<br>C527_1       | 84 | ATL8C3<br>8425:2<br>81..95<br>8  | 0.86 |     |      |  |  |  |   |
| 161381 | ATU023<br>321 | ATL8C3<br>8093:6<br>77..13       | gap2 | ATCEA4<br>S3158        | 84 | ATL8C3<br>8093:6<br>67..13       | 0.86 |     |      |  |  |  |   |
| 161382 | ATU023        | ATL8C9                           | gap2 | ATCEA4                 | 84 | ATL8C9                           | 0.84 |     |      |  |  |  |   |

|        | 322           | 084:54<br>4..1                   |      | S20826                                    |        | 084:54<br>4..71                  |      |  |  |  |  |  |  |  |  |  |  |
|--------|---------------|----------------------------------|------|---|--------|----------------------------------|------|--|--|--|--|--|--|--|--|--|--|
| 161383 | ATU023<br>323 | ATL8C1<br>9561:1<br>00..85<br>1  | gap2 | ATCEA4<br>C5138<br>1                      | 84     | ATL8C1<br>9561:8<br>51..10<br>0  | 0.84 |  |  |  |  |  |  |  |  |  |  |
| 161384 | ATU023<br>324 | ATL8C2<br>7518:1<br>433..6<br>0  | gap2 | ATCEA4<br>C1184<br>2,<br>ATCEA4<br>S16867 | 84, 83 | ATL8C2<br>7518:1<br>307..3<br>77 | 0.84 |  |  |  |  |  |  |  |  |  |  |
| 161385 | ATU023<br>325 | ATL8S1<br>8399:1<br>57..59<br>3  | gap2 | ATCEA4<br>C95106<br>1                     | 84     | ATL8S1<br>8399:1<br>57..50<br>9  | 0.84 |  |  |  |  |  |  |  |  |  |  |
| 161386 | ATU023<br>326 | ATL8C1<br>8264:4<br>47..10<br>50 | gap2 | ATCEA4<br>S321                            | 84     | ATL8C1<br>8264:4<br>47..63<br>7  | 0.83 |  |  |  |  |  |  |  |  |  |  |
| 161387 | ATU023<br>327 | ATL8C9<br>758:54<br>8..137       | gap2 | ATCEA4<br>S34139                          | 84     | ATL8C9<br>758:49<br>9..137       | 0.83 |  |  |  |  |  |  |  |  |  |  |
| 161388 | ATU023<br>328 | ATL8S4<br>069:31<br>5..628       | gap2 | ATCEA4<br>C491_1                          | 84     | ATL8S4<br>069:35<br>8..555       | 0.83 |  |  |  |  |  |  |  |  |  |  |
| 161389 | ATU023<br>329 | ATL8C3<br>8388:1<br>..835        | gap2 | ATCEA4<br>C30165<br>_1                    | 84     | ATL8C3<br>8388:1<br>41..59<br>1  | 0.82 |  |  |  |  |  |  |  |  |  |  |
| 161390 | ATU023<br>330 | ATL8C1<br>6049:7<br>54..18       | gap2 | ATCEA4<br>C19491<br>1                     | 84     | ATL8C1<br>6049:7<br>53..18       | 0.82 |  |  |  |  |  |  |  |  |  |  |
| 161391 | ATU023<br>331 | ATL8C4<br>7650:2<br>89..1        | gap2 | ATCEA4<br>C289_1                          | 84     | ATL8C4<br>7650:1<br>50..33       | 0.81 |  |  |  |  |  |  |  |  |  |  |
| 161392 | ATU023<br>332 | ATL8C4<br>4286:1<br>..364        | gap2 | ATCEA4<br>S35768<br>, ATCEA4<br>S30716    | 84, 83 | ATL8C4<br>4286:9<br>8..208       | 0.81 |  |  |  |  |  |  |  |  |  |  |

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| 161393 | ATU023<br>333 | ATL8C1<br>7253:8<br>45..60<br>3  | gap2 | ATCEA4<br>C70084<br>_3 | 84 | ATL8C1<br>7253:6<br>90..60<br>3  | 0.80 | g45443<br>74 | 100 | 1623 | 2.3e-<br>162 | (AC006<br>920)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161394 | ATU023<br>334 | ATL8C5<br>222:25<br>24..94<br>6  | gap2 | ATCEA4<br>S6851        | 83 | ATL8C5<br>222:25<br>24..94<br>6  | 0.80 |              |     |      |              |   |
| 161395 | ATU023<br>335 | ATL8C3<br>2794:1<br>092..2<br>5  | gap2 | ATCEA4<br>C35048<br>_1 | 84 | ATL8C3<br>2794:1<br>092..2<br>5  | 0.79 |              |     |      |              |   |
| 161396 | ATU023<br>336 | ATL8C2<br>4726:1<br>158..2<br>11 | gap2 | ATCEA4<br>S6519        | 84 | ATL8C2<br>4726:7<br>58..21<br>1  | 0.78 |              |     |      |              |   |
| 161397 | ATU023<br>337 | ATL8C3<br>0698:1<br>24..10<br>35 | gap2 | ATCEA4<br>S6199        | 84 | ATL8C3<br>0698:1<br>58..10<br>35 | 0.78 |              |     |      |              |   |
| 161398 | ATU023<br>338 | ATL8S8<br>955:13<br>9..513       | gap2 | ATCEA4<br>C22779<br>_1 | 84 | ATL8S8<br>955:14<br>7..513       | 0.78 |              |     |      |              |   |
| 161399 | ATU023<br>339 | ATL8C2<br>9580:3<br>367..4<br>5  | gap2 | ATCEA4<br>C19491<br>_1 | 84 | ATL8C2<br>9580:3<br>367..4<br>5  | 0.77 |              |     |      |              |   |
| 161400 | ATU023<br>340 | ATL8C4<br>2411:1<br>877..7<br>66 | gap2 | ATCEA4<br>S2780        | 84 | ATL8C4<br>2411:1<br>823..7<br>66 | 0.77 |              |     |      |              |   |
| 161401 | ATU023<br>341 | ATL8C2<br>6002:4<br>94..1        | gap2 | ATCEA4<br>S34316       | 84 | ATL8C2<br>6002:4<br>20..34       | 0.77 |              |     |      |              |   |



|        |                        |        |   |                        |                                  |      |              |     |      |   |
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| 351    | 5007:5<br>01..23<br>87 | S17325 |   | 5007:5<br>01..18<br>77 |                                  |      |              |     |      |   |
| 161412 | ATU023<br>352          | gap2   | ATCEA4<br>S7753   | 84                     | ATL8C2<br>3667:9<br>14..25       | 0.71 |              |     |      |   |
| 161413 | ATU023<br>353          | gap2   | ATCEA4<br>S13901  | 83                     | ATL8C2<br>5836:1<br>0..400<br>0  | 0.70 | g40380<br>66 | 100 | 743  | 1.7e-<br>64<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 161414 | ATU023<br>354          | gap2   | ATCEA4<br>C36433<br>1,<br>ATCEA4<br>C8042-<br>1,<br>ATCEA4<br>S3834 | 83,<br>82, 82          | ATL8C1<br>8556:7<br>71..32<br>47 | 0.69 | g29824<br>37 | 100 | 2469 | 8.0e-<br>250<br>(AL022<br>224)<br>terpen<br>e<br>cyclas<br>e like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161415 | ATU023<br>355          | gap2   | ATCEA4<br>C74725<br>1   | 84                     | ATL8S1<br>1644:1<br>73..48<br>8  | 0.69 |              |     |      |   |
| 161416 | ATU023<br>356          | gap2   | ATCEA4<br>C69904<br>1   | 84                     | ATL8S2<br>8673:1<br>89..12<br>5  | 0.68 |              |     |      |   |
| 161417 | ATU023<br>357          | gap2   | ATCEA4<br>C19922<br>1   | 84                     | ATL8C3<br>2926:8<br>72..11<br>2  | 0.68 |              |     |      |   |

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| 161418 | ATU023<br>358 | ATL8C3<br>3378:6<br>22..22<br>0   | gap2 | ATCEA4<br>C40222<br>_1  | 84 | ATL8C3<br>3378:3<br>14..22<br>0   | 0.68 |              |     |    |        |              |
| 161419 | ATU023<br>359 | ATL8C7<br>069:1.<br>.611          | gap2 | ATCEA4<br>C11837<br>2 1 | 84 | ATL8C7<br>069:48<br>..584         | 0.66 |              |     |    |        |              |
| 161420 | ATU023<br>360 | ATL8C3<br>7142:1<br>..421         | gap2 | ATCEA4<br>S31274        | 84 | ATL8C3<br>7142:1<br>16..42<br>1   | 0.66 |              |     |    |        |              |
| 161421 | ATU023<br>361 | ATL8C3<br>0802:5<br>15..68<br>4   | gap2 | ATCEA4<br>S9887         | 84 | ATL8C3<br>0802:5<br>15..66<br>5   | 0.66 |              |     |    |        |              |
| 161422 | ATU023<br>362 | ATL8C1<br>7563:2<br>3..167<br>6   | gap2 | ATCEA4<br>S26674        | 84 | ATL8C1<br>7563:2<br>3..149<br>3   | 0.65 |              |     |    |        |              |
| 161423 | ATU023<br>363 | ATL8C7<br>044:10<br>22..24<br>9   | gap2 | ATCEA4<br>S1780         | 84 | ATL8C7<br>044:88<br>9..249        | 0.64 |              |     |    |        |              |
| 161424 | ATU023<br>364 | ATL8C2<br>233:33<br>9..1          | gap2 | ATCEA4<br>S33737        | 84 | ATL8C2<br>233:32<br>5..206        | 0.64 |              |     |    |        |              |
| 161425 | ATU023<br>365 | ATL8C4<br>5051:3<br>78..87<br>1   | gap2 | ATCEA4<br>S24511        | 84 | ATL8C4<br>5051:3<br>78..78<br>8   | 0.64 |              |     |    |        |              |
| 161426 | ATU023<br>366 | ATL8C4<br>4590:1<br>434..2<br>05  | gap2 | ATCEA4<br>S27142        | 84 | ATL8C4<br>4590:1<br>434..2<br>25  | 0.63 |              |     |    |        |              |
| 161427 | ATU023<br>367 | ATL8C2<br>1279:2<br>936..2<br>106 | gap2 | ATCEA4<br>S26640        | 84 | ATL8C2<br>1279:2<br>936..2<br>333 | 0.62 |              |     |    |        |              |
| 161428 | ATU023<br>368 | ATL8C2<br>1949:6                  | gap2 | ATCEA4<br>S16748        | 83 | ATL8C2<br>1949:1                  | 0.61 | g38772<br>51 | 100 | 80 | 0.0056 | (Z9338<br>2) |

|        |               | 2..208<br>1                      |      |  |                  | 18..20<br>81                     |      |                               |             |              |                              |   |  |  |  |  | F45G2.<br>9<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] |
|--------|---------------|----------------------------------|------|--|------------------|----------------------------------|------|-------------------------------|-------------|--------------|------------------------------|---|--|--|--|--|--|
| 161429 | ATU023<br>369 | ATL8C2<br>1736:2<br>48..40<br>35 | gap2 | ATCEA4<br>S81                                  | 83               | ATL8C2<br>1736:4<br>93..36<br>71 | 0.60 | 945672<br>96,<br>940380<br>66 | 100,<br>100 | 2266,<br>448 | 1.5e-<br>201,<br>6.0e-<br>16 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retroel<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |  |  |  |  |
| 161430 | ATU023<br>370 | ATL8S1<br>1564:1<br>..253        | gap2 | ATCEA4<br>C33093<br>1                          | 84               | ATL8S1<br>1564:1<br>96..78       | 0.59 |                               |             |              |                              |   |  |  |  |  |  |
| 161431 | ATU023<br>371 | ATL8S2<br>3174:1<br>..295        | gap2 | ATCEA4<br>C814_1<br>,<br>ATCEA4<br>S31212<br>, | 84,<br>83,<br>83 | ATL8S2<br>3174:8<br>9..238       | 0.59 |                               |             |              |                              |   |  |  |  |  |  |





|        | 380           | 4569:5                            |      | S27178                                    |        | 4569:8                            |      |              |     |      |              |  |  |
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| 161441 | ATU023<br>381 | ATL8C9<br>087:10<br>19..21<br>9   | gap2 | ATCEA4<br>C2858_1                         | 84     | ATL8C9<br>087:10<br>19..32<br>9   | 0.52 |              |     |      |              |  |  |
| 161442 | ATU023<br>382 | ATL8C4<br>0739:8<br>18..37<br>5   | gap2 | ATCEA4<br>S11817<br>,<br>ATCEA4<br>S11628 | 84, 84 | ATL8C4<br>0739:5<br>36..37<br>5   | 0.52 |              |     |      |              |  |  |
| 161443 | ATU023<br>383 | ATL8C3<br>343:31<br>3..132<br>9   | gap2 | ATCEA4<br>C2104_1                         | 83     | ATL8C3<br>343:34<br>1..128<br>7   | 0.52 | 924354<br>06 | 100 | 1056 | 1.5e-<br>102 | (U8349<br>0)<br>thau-<br>ma-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 161444 | ATU023<br>384 | ATL8C7<br>585:19<br>0..677        | gap2 | ATCEA4<br>S11817<br>,<br>ATCEA4<br>S11628 | 84, 83 | ATL8C7<br>585:19<br>0..677        | 0.51 |              |     |      |              |  |  |
| 161445 | ATU023<br>385 | ATL8C1<br>5530:6<br>02..14<br>22  | gap2 | ATCEA4<br>S29972                          | 84     | ATL8C1<br>5530:1<br>422..6<br>02  | 0.51 |              |     |      |              |  |  |
| 161446 | ATU023<br>386 | ATL8C2<br>0799:4<br>028..3<br>174 | gap2 | ATCEA4<br>C69693<br>_1                    | 84     | ATL8C2<br>0799:4<br>028..3<br>174 | 0.49 |              |     |      |              |  |  |
| 161447 | ATU023<br>387 | ATL8C4<br>9443:2<br>40..90<br>6   | gap2 | ATCEA4<br>C2750_1                         | 84     | ATL8C4<br>9443:2<br>40..86<br>8   | 0.48 |              |     |      |              |  |  |
| 161448 | ATU023        | ATL8C3                            | gap2 | ATCEA4                                    | 84     | ATL8C3                            | 0.47 |              |     |      |              |  |  |

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| 161449 | 388 | ATU023<br>389 | 0606:3<br>18..11<br>23            | gap2 | S30241                 | 0606:3<br>18..11<br>23           | ATL8C1<br>3580:3<br>713..3<br>782 | 0.47 | 945672<br>96,<br>947739<br>20 | 2243,<br>3281 | 2.0e-<br>197,<br>1.3e-<br>314 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161450 | 390 | ATU023<br>390 | ATL8C1<br>3580:3<br>622..3<br>782 | gap2 | ATCEA4<br>S253         | ATL8C3<br>7557:2<br>46..13<br>37 | ATL8C3<br>7557:2<br>46..13<br>37  | 0.47 |                               |               |                               |   |
| 161451 | 391 | ATU023<br>391 | ATL8C1<br>421:82<br>79..41<br>4   | gap2 | ATCEA4<br>S81          | ATL8C1<br>421:82<br>79..24<br>35 | ATL8C1<br>421:82<br>79..24<br>35  | 0.47 |                               |               |                               |   |
| 161452 | 392 | ATU023<br>392 | ATL8C2<br>6592:2<br>78..12<br>53  | gap2 | ATCEA4<br>C23748<br>_1 | ATL8C2<br>6592:2<br>78..12<br>53 | ATL8C2<br>6592:2<br>78..12<br>53  | 0.46 |                               |               |                               |   |

|        |               |                                   |      |                         |    |                                   |      |  |                   |                      |  |  |
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| 161453 | ATU023<br>393 | ATL8C4<br>3913:6<br>269..5<br>998 | gap2 | ATCEA4<br>S4856         | 84 | ATL8C4<br>3913:6<br>226..6<br>047 | 0.46 |  |                   |                      |  |  |
| 161454 | ATU023<br>394 | ATL8C3<br>707:44<br>3..135<br>4   | gap2 | ATCEA4<br>C12660<br>2_1 | 84 | ATL8C3<br>707:44<br>3..900        | 0.45 |  |                   |                      |  |  |
| 161455 | ATU023<br>395 | ATL8C4<br>9915:1<br>6391..<br>38  | gap2 | ATCEA4<br>S33179        | 84 | ATL8C4<br>9915:1<br>6391..<br>38  | 0.45 |  |                   |                      |  |  |
| 161456 | ATU023<br>396 | ATL8C1<br>283:39<br>18..12<br>123 | gap2 | ATCEA4<br>S30567        | 83 | ATL8C1<br>283:90<br>97..12<br>123 | 0.43 | g36953<br>97,<br>g44173<br>09,<br>g33778<br>16 | 100, 44<br>53, 44 | 2020,<br>885,<br>912 | 1.5e-<br>140,<br>1.7e-<br>78,<br>3.8e-<br>83 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>446)<br>putati<br>ve pol<br>ypr<br>otei<br>n with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na]; |

|        |               |                                   |      |   |        |                                   |      |  |  |  |  |  |
|--------|---------------|-----------------------------------|------|---|--------|-----------------------------------|------|--|--|--|--|--|
| 161457 | ATU023<br>397 | ATL8C2<br>0912:1<br>1..842        | gap2 | ATCEA4<br>C11620<br>1_1                 | 84     | ATL8C2<br>0912:2<br>68..84<br>2   | 0.42 |  |  |  |  | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161458 | ATU023<br>398 | ATL8C2<br>6667:5<br>43..23<br>91  | gap2 | ATCEA4<br>S22066                        | 84     | ATL8C2<br>6667:2<br>391..5<br>43  | 0.42 |  |  |  |  |  |
| 161459 | ATU023<br>399 | ATL8C4<br>1623:1<br>452..1<br>070 | gap2 | ATCEA4<br>C11575<br>_2                  | 84     | ATL8C4<br>1623:1<br>452..1<br>070 | 0.41 |  |  |  |  |  |
| 161460 | ATU023<br>400 | ATL8S2<br>819:1.<br>.456          | gap2 | ATCEA4<br>C4635_4,<br>ATCEA4<br>C4635_5 | 84, 84 | ATL8S2<br>819:21<br>2..452        | 0.41 |  |  |  |  |  |
| 161461 | ATU023        | ATL8C1                            | gap2 | ATCEA4                                  | 84     |                                   |      |  |  |  |  |  |



















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2.

[illegible]



[illegible]













| Run | Time    | Temp  | Pressure | Flow       | Conc  | Yield | Analysis |
|-----|---------|-------|----------|------------|-------|-------|----------|
| 1   | 10 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.1 g | 95.0%    |
| 2   | 20 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.2 g | 95.0%    |
| 3   | 30 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.3 g | 95.0%    |
| 4   | 40 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.4 g | 95.0%    |
| 5   | 50 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.5 g | 95.0%    |
| 6   | 60 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.6 g | 95.0%    |
| 7   | 70 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.7 g | 95.0%    |
| 8   | 80 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.8 g | 95.0%    |
| 9   | 90 min  | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 0.9 g | 95.0%    |
| 10  | 100 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.0 g | 95.0%    |
| 11  | 110 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.1 g | 95.0%    |
| 12  | 120 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.2 g | 95.0%    |
| 13  | 130 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.3 g | 95.0%    |
| 14  | 140 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.4 g | 95.0%    |
| 15  | 150 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.5 g | 95.0%    |
| 16  | 160 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.6 g | 95.0%    |
| 17  | 170 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.7 g | 95.0%    |
| 18  | 180 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.8 g | 95.0%    |
| 19  | 190 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 1.9 g | 95.0%    |
| 20  | 200 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.0 g | 95.0%    |
| 21  | 210 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.1 g | 95.0%    |
| 22  | 220 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.2 g | 95.0%    |
| 23  | 230 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.3 g | 95.0%    |
| 24  | 240 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.4 g | 95.0%    |
| 25  | 250 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.5 g | 95.0%    |
| 26  | 260 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.6 g | 95.0%    |
| 27  | 270 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.7 g | 95.0%    |
| 28  | 280 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.8 g | 95.0%    |
| 29  | 290 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 2.9 g | 95.0%    |
| 30  | 300 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.0 g | 95.0%    |
| 31  | 310 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.1 g | 95.0%    |
| 32  | 320 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.2 g | 95.0%    |
| 33  | 330 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.3 g | 95.0%    |
| 34  | 340 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.4 g | 95.0%    |
| 35  | 350 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.5 g | 95.0%    |
| 36  | 360 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.6 g | 95.0%    |
| 37  | 370 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.7 g | 95.0%    |
| 38  | 380 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.8 g | 95.0%    |
| 39  | 390 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 3.9 g | 95.0%    |
| 40  | 400 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.0 g | 95.0%    |
| 41  | 410 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.1 g | 95.0%    |
| 42  | 420 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.2 g | 95.0%    |
| 43  | 430 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.3 g | 95.0%    |
| 44  | 440 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.4 g | 95.0%    |
| 45  | 450 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.5 g | 95.0%    |
| 46  | 460 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.6 g | 95.0%    |
| 47  | 470 min | 100°C | 1.0 atm  | 1.0 ml/min | 0.1 M | 4.7 g | 95.      |

[illegible]

[illegible][illegible]





[illegible]











|        |               |                                  |      |                        |    |  |  |  |  |              |    |     |             |   |
|--------|---------------|----------------------------------|------|------------------------|----|--|--|--|--|--------------|----|-----|-------------|---|
| 161793 | ATU023<br>733 | ATL8C1<br>4881:8<br>69..24<br>2  | gap2 | ATCEA4<br>C29000<br>_1 | 83 |  |  |  |  | g48369<br>35 | 99 | 530 | 2.2e-<br>52 | thalia<br>na]<br>(AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 161794 | ATU023<br>734 | ATL8C4<br>5565:1<br>196..8<br>36 | gap2 | ATCEA4<br>S32475       | 83 |  |  |  |  | g41855<br>05 | 99 | 408 | 1.8e-<br>41 | (AF101<br>038)<br>nonspe<br>cific<br>lipid-<br>transf<br>er<br>protei<br>n<br>precu<br>sor<br>[Brass<br>ica<br>napus] |
| 161795 | ATU023<br>735 | ATL8C4<br>8301:4<br>0..851       | gap2 | ATCEA4<br>C5187<br>_1  | 83 |  |  |  |  | g34510<br>72 | 99 | 445 | 1.3e-<br>35 | (AL031<br>326)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 161796 | ATU023<br>736 | ATL8C3<br>272:67<br>9..115       | gap2 | ATCEA4<br>S370         | 83 |  |  |  |  | g46626<br>46 | 99 | 443 | 1.9e-<br>19 | (AC006<br>429)<br>hypoth<br>etical  |

|        |               |                                   |      |                  |    |  |  |  |  |  |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|------|------------------|----|--|--|--|--|--|--|--------------|----|------|--------------|---|
| 161797 | ATU023<br>737 | ATL8C2<br>0617:2<br>417..1        | gap2 | ATCEA4<br>S7755  | 83 |  |  |  |  |  |  | g22448<br>26 | 99 | 3359 | 3.2e-<br>300 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(Z9733<br>6)<br>replic<br>ation<br>contro<br>l<br>protein<br>homolo<br>g<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161798 | ATU023<br>738 | ATL8C4<br>2570:6<br>31..10<br>78  | gap2 | ATCEA4<br>S9621  | 83 |  |  |  |  |  |  | g30435<br>36 | 99 | 328  | 2.8e-<br>31  | (AB000<br>708)<br>SAUR<br>[Rapha<br>nus<br>sativu<br>s]   |
| 161799 | ATU023<br>739 | ATL8C1<br>4051:4<br>231..4<br>658 | gap2 | ATCEA4<br>S4192  | 83 |  |  |  |  |  |  | g18711<br>79 | 99 | 429  | 9.0e-<br>30  | (U9043<br>9)<br>FMRFam<br>ide<br>precur<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161800 | ATU023<br>740 | ATL8C2<br>6074:1                  | gap2 | ATCEA4<br>S31356 | 83 |  |  |  |  |  |  | g18715<br>77 | 99 | 148  | 5.5e-<br>15  | (Y1155<br>3)  |

|        |               |                                   |      |                  |    |                                   |      |                               |        |              |                     |   |
|--------|---------------|-----------------------------------|------|------------------|----|-----------------------------------|------|-------------------------------|--------|--------------|---------------------|---|
| 161801 | ATU023<br>741 | ATL8C2<br>6521:7<br>533..3<br>435 | gap2 | ATCEA4<br>S34902 | 83 | ATL8C2<br>6521:7<br>533..3<br>435 | 0.72 | g31282<br>34                  | 95     | 724          | 1.3e-<br>46         | (AC004<br>077)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161802 | ATU023<br>742 | ATL8C1<br>268:68<br>78..36<br>5   | gap2 | ATCEA4<br>S12798 | 83 | ATL8C1<br>268:21<br>10..64<br>0   | 0.98 | g40068<br>53,<br>g43097<br>65 | 93, 77 | 964,<br>4060 | 1.0e-<br>99,<br>0.0 | (Z9970<br>7)<br>cytoch<br>rome<br>P450-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>217)<br>putati<br>ve<br>retrot<br>ranspo<br>son |

|        |               |                                    |      |                  |    |                                    |      |              |    |      |              |  |  |
|--------|---------------|------------------------------------|------|------------------|----|------------------------------------|------|--------------|----|------|--------------|--|--|
| 161803 | ATU023<br>743 | ATL8C1<br>68:1..<br>1729           | gap2 | ATCEA4<br>S11082 | 83 | ATL8C1<br>68:113<br>7..172<br>9    | 0.69 | g36953<br>96 | 92 | 1562 |              |  | polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to .<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161804 | ATU023<br>744 | ATL8C3<br>1387:1<br>3966..<br>8831 | gap2 | ATCEA4<br>S81    | 83 | ATL8C3<br>1387:1<br>3852..<br>9350 | 0.42 | g47739<br>20 | 91 | 2868 | 2.4e-<br>267 |  | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161805 | ATU023<br>745 | ATL8C1<br>6382:1                   | gap2 | ATCEA4<br>S3158  | 83 | ATL8C1<br>6382:1                   | 0.98 | g31352<br>52 | 90 | 768  | 8.3e-<br>61  |  | (AC003<br>058)   |



|        |               |                                  |      |                         |    |                                   |              |      |              |    |      |              |   |
|--------|---------------|----------------------------------|------|-------------------------|----|-----------------------------------|--------------|------|--------------|----|------|--------------|---|
| 161806 | ATU023<br>746 | ATL8C4<br>3261:7<br>235..4<br>26 | gap2 | ATCEA4<br>C874_1        | 83 | ATL8C4<br>3261:7<br>226..1<br>987 | 41..14<br>85 | 0.77 | g22447<br>70 | 90 | 5753 | 0.0          | (Z9733<br>5)<br>unname<br>d<br>protei<br>n<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 161807 | ATU023<br>747 | ATL8C3<br>4950:2<br>603..9<br>62 | gap2 | ATCEA4<br>C11665<br>3_1 | 83 | ATL8C3<br>4950:2<br>499..1<br>157 |              | 0.97 | g22448<br>93 | 89 | 1489 | 4.6e-<br>156 | (Z9733<br>8)<br>simila<br>rity<br>to<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161808 | ATU023<br>748 | ATL8C3<br>5680:1<br>..3587       | gap2 | ATCEA4<br>S34379        | 83 | ATL8C3<br>5680:1<br>00..35<br>87  |              | 0.85 | g40564<br>37 | 88 | 1074 | 9.5e-<br>79  | (AC005<br>990)<br>Strong<br>simila<br>rity<br>to<br>PFAM<br>PF1000                                  |

|        |               |                           |      |                  |    |                                  |      |                               |        |               |                               |  |
|--------|---------------|---------------------------|------|------------------|----|----------------------------------|------|-------------------------------|--------|---------------|-------------------------------|--|
| 161809 | ATU023<br>749 | ATL8C3<br>690:49<br>56..1 | gap2 | ATCEA4<br>S11406 | 83 | ATL8C3<br>690:46<br>62..10<br>15 | 0.64 | g42635<br>49,<br>g43887<br>22 | 87, 85 | 2035,<br>1748 | 2.7e-<br>207,<br>7.2e-<br>142 | 69<br>Eukary<br>otic<br>protei<br>n<br>kinase<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161810 | ATU023        | ATL8C4                    | gap2 | ATCEA4           | 83 | ATL8C4                           | 0.84 | g39351                        | 83     | 851           | 2.2e-                         | (AC006<br>250)<br>putati<br>ve<br>En/Spm<br>transp<br>oson<br>hypoth<br>etical<br>protei<br>n 1<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>413)<br>putati<br>ve<br>centro<br>meric<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                           |      |                  |    |                                  |      |                               |        |               |                               | (AC005)  |

|        |               |                                 |      |  |        |                                 |      |              |      |    |              |  |  |
|--------|---------------|---------------------------------|------|--|--------|---------------------------------|------|--------------|------|----|--------------|--|--|
|        | 750           | 2552:1<br>632..2<br>30          |      | C41655<br>_1                             |        | 2552:1<br>306..2<br>30          |      | 51           |      |    |              | 88   | 106)<br>T25N20<br>.15<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161811 | ATU023<br>751 | ATL8C4<br>5721:1<br>..1919      | gap2 | ATCEA4<br>S6772                          | 83     | ATL8C4<br>5721:4<br>8..116<br>6 | 0.68 | g33675<br>35 | 1914 | 83 | 4.8e-<br>198 | (AC004<br>392)<br>F8K4.2<br>2<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |  |
| 161812 | ATU023<br>752 | ATL8C1<br>1079:9<br>28..29      | gap2 | ATCEA4<br>S13566                         | 83     | ATL8C1<br>1079:8<br>32..13<br>4 | 0.96 | g28282<br>89 | 854  | 82 | 5.2e-<br>79  | (AL021<br>687)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |  |
| 161813 | ATU023<br>753 | ATL8C1<br>031:19<br>58..57<br>7 | gap2 | ATCEA4<br>S34439<br>,<br>ATCEA4<br>S6424 | 83, 82 | ATL8C1<br>031:19<br>58..57<br>7 | 0.70 | g81884<br>9  | 1226 | 82 | 4.0e-<br>131 | (U2543<br>0)<br>nucleo<br>tide<br>pyroph<br>osphat<br>ase<br>precu<br>sor<br>[Oryza<br>sativa<br>] |  |
| 161814 | ATU023<br>754 | ATL8C2<br>0449:1<br>360..2      | gap2 | ATCEA4<br>S31052                         | 83     | ATL8C2<br>0449:7<br>94..27      | 0.96 | g36953<br>84 | 255  | 80 | 7.3e-<br>08  | (AF096<br>370)<br>contai   |  |

|        |               |                                  |      |  |        |                                 |      |              |    |      |              |   |
|--------|---------------|----------------------------------|------|--|--------|---------------------------------|------|--------------|----|------|--------------|---|
| 161815 | ATU023<br>755 | ATL8C2<br>9699:1<br>046..2<br>48 | gap2 | ATCEA4<br>C12600<br>1,<br>ATCEA4<br>S31270 | 83, 82 | ATL8C2<br>9699:9<br>40..24<br>8 | 0.93 | g46782<br>26 | 80 | 429  | 1.4e-<br>33  | (AC007<br>135)<br>putati<br>ve 40S<br>riboso<br>mal<br>protei<br>n S14<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161816 | ATU023<br>756 | ATL8C1<br>9765:1<br>431..3<br>35 | gap2 | ATCEA4<br>C53113<br>1<br>_                 | 83     |                                 |      | g38920<br>54 | 80 | 1300 | 6.3e-<br>135 | (AC002<br>330)<br>putati<br>ve<br>glycos<br>yltran  |

|        |               |                                    |      |                       |    |                                 |      |              |    |      |              |  |
|--------|---------------|------------------------------------|------|-----------------------|----|---------------------------------|------|--------------|----|------|--------------|--|
| 161817 | ATU023<br>757 | ATL8C3<br>663:98<br>3..239<br>9    | gap2 | ATCEA4<br>S15077      | 83 | ATL8C3<br>663:98<br>3..230<br>1 | 0.81 | g95142<br>7  | 79 | 1209 | 7.4e-<br>128 | (M59857) stearyl-acyl-carrier protein desaturase [Ricin us communis] |
| 161818 | ATU023<br>758 | ATL8S3<br>0460:1<br>..234          | gap2 | ATCEA4<br>C30036<br>1 | 83 |                                 |      | g44551<br>02 | 78 | 128  | 0.072        | (AF124226) pollen - specific protein BAN102 [Brassica rapa]          |
| 161819 | ATU023<br>759 | ATL8C4<br>1788:9<br>567..1<br>2522 | gap2 | ATCEA4<br>S81         | 83 |                                 |      | g45672<br>96 | 77 | 1599 | 2.4e-<br>163 | (AC006918) putative Athila retroelement                              |



|        |               |                                 |      |                         |    |  |    |  |      |                               |        |               |                      |  |
|--------|---------------|---------------------------------|------|-------------------------|----|--|----|--|------|-------------------------------|--------|---------------|----------------------|--|
| 161823 | ATU023<br>763 | ATL8C6<br>280:15<br>33..1       | gap2 | ATCEA4<br>C13861<br>3_1 | 83 |  | 32 |  | 0.81 | g30969<br>35                  | 71     | 1019          | 1.9e-<br>101         | ve TMV<br>resistance<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161824 | ATU023<br>764 | ATL8C1<br>4724:1<br>7832..<br>1 | gap2 | ATCEA4<br>S33179        | 83 |  |    |  | 0.57 | g43253<br>61,<br>g38105<br>95 | 71, 48 | 1544,<br>1696 | 4.8e-<br>190,<br>0.0 | (AF128<br>395)<br>contains<br>similarity<br>to reverse<br>transcriptase<br>(Pfam:<br>PF00078,<br>Score=<br>137.6,<br>E=2.3e-<br>37,<br>N=1)<br>and |





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| 161826 | ATU023<br>766 | ATL8C9<br>393:60<br>6..131<br>0  | gap2 | ATCEA4<br>S388          | 83 | ATL8C9<br>393:63<br>7..120<br>1  | 0.45 | g45389<br>69 | 70 | 442  | 1.2e-<br>46  | na]<br>(AL049<br>488)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161827 | ATU023<br>767 | ATL8C5<br>749:17<br>81..1        | gap2 | ATCEA4<br>C11420<br>8_1 | 83 | ATL8C5<br>749:17<br>81..24<br>0  | 0.45 | g32490<br>76 | 69 | 1229 |              | (AC004<br>473)<br>Simila<br>r to<br>beta<br>glucos<br>idase<br>(bglA)<br>gbIX94<br>986<br>from<br>Maniho<br>t<br>escule<br>nta.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161828 | ATU023<br>768 | ATL8C3<br>5792:2<br>51..41<br>67 | gap2 | ATCEA4<br>C2115_1       | 83 | ATL8C3<br>5792:3<br>77..39<br>86 | 0.79 | g21911<br>74 | 68 | 2153 | 4.8e-<br>175 | (AF007<br>270)<br>simila<br>r to<br>the<br>peptid<br>ase<br>family<br>S16<br>[Arabi  |

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| 161829 | ATU023<br>769 | ATL8C9<br>442:1.<br>.4282 | gap2 | ATCEA4<br>S11628       | 83 | ATL8C9<br>442:69<br>8..428<br>2 | 0.70 | g33778<br>16 | 68 | 2340 | 1.7e-<br>222 | dopsis<br>thalia<br>na]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161830 | ATU023<br>770 | ATL8C9<br>69:1..<br>1238  | gap2 | ATCEA4<br>C74355<br>_1 | 83 | ATL8C9<br>69:137<br>..1238      | 0.95 | g34510<br>75 | 67 | 1556 | 1.2e-<br>155 | (AL031<br>326)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161831 | ATU023<br>771 | ATL8C3<br>2830:1<br>..961 | gap2 | ATCEA4<br>C7997<br>_1  | 83 |                                 |      | g39285<br>43 | 67 | 1268 | 3.6e-<br>125 | (AB016<br>819) 、<br>UDP-<br>glucos<br>e<br>glucos   |

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| 161832 | ATU023<br>772 | ATL8C4<br>6344:1<br>471..1       | gap2 | ATCEA4<br>S4078        | 83 |  | ATL8C4<br>6344:3<br>96..25<br>0  | 0.49 | g45859<br>11 | 66 | 1578 | 8.5e-<br>150 | yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161833 | ATU023<br>773 | ATL8C3<br>0665:3<br>06..15<br>26 | gap2 | ATCEA4<br>C24446<br>_1 | 83 |  | ATL8C3<br>0665:5<br>06..14<br>21 | 0.48 | g46462<br>28 | 65 | 142  | 3.9e-<br>10  | (AC007<br>235)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161834 | ATU023<br>774 | ATL8C3<br>9317:8<br>32..21<br>3  | gap2 | ATCEA4<br>S178         | 83 |  |                                  |      | g40380<br>66 | 65 | 439  | 7.9e-<br>14  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 161835 | ATU023        | ATL8C9                           | gap2 | ATCEA4                 | 83 |  | ATL8C9                           | 0.86 | g39803       | 64 | 422  | 9.0e-        | (AC004   |

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| 161836 | 775           | 370:45<br>0..182<br>3      |      | S5282                                     |        | 370:45<br>0..181<br>1      | 97   |              |    |      | 47           | 561)<br>putati<br>ve<br>protei<br>n<br>phosph<br>atase<br>2C<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        | ATU023<br>776 | ATL8C3<br>162:11<br>..2635 | gap2 | ATCEA4<br>S11628<br>,<br>ATCEA4<br>S11817 | 83, 82 | ATL8C3<br>162:11<br>..2635 | 0.62 | g33778<br>16 | 64 | 1248 | 1.6e-<br>114 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161837 | ATU023<br>777 | ATL8C9<br>009:39<br>67..60 | gap2 | ATCEA4<br>S33179                          | 83     | ATL8C9<br>009:39<br>67..60 | 0.47 | g42630<br>62 | 63 | 354  |              | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi  |

|        |               |                                  |      |                        |    |                                  |      |                               |        |             |                             |    |     |             |   |
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| 161838 | ATU023<br>778 | ATL8C1<br>5596:1<br>..447        | gap2 | ATCEA4<br>S31969       | 83 |                                  |      |                               |        |             | g44572<br>21                | 63 | 162 | 5.8e-<br>11 | dopsis<br>thalia<br>nal<br>(AF127<br>797)<br>putati<br>ve<br>bZIP<br>DNA-<br>bindin<br>g<br>protei<br>n<br>[Capsi<br>cum<br>chinen<br>se]   |
| 161839 | ATU023<br>779 | ATL8C2<br>2260:3<br>488..2<br>42 | gap2 | ATCEA4<br>C63088<br>_1 | 83 | ATL8C2<br>2260:3<br>462..6<br>99 | 0.52 | g44544<br>48,<br>g21911<br>77 | 61, 54 | 623,<br>621 | 1.9e-<br>58,<br>3.7e-<br>61 |    |     |             | (AC006<br>234)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AF007<br>270)<br>belong<br>s to<br>the<br>SPOU<br>family<br>of<br>rRNA<br>methyl<br>ases.<br>[Arabi<br>dopsis |

|        |               |                                  |      |                         |    |  |                                  |      |  |              |    |      |              |  |
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| 161840 | ATU023<br>780 | ATL8C1<br>6742:3<br>25..19<br>02 | gap2 | ATCEA4<br>S12719        | 83 |  | ATL8C1<br>6742:3<br>25..18<br>14 | 0.67 |  | g30565<br>80 | 60 | 2359 | 1.7e-<br>248 | thalia<br>na]<br>(AC004<br>255)<br>T1F9.1<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161841 | ATU023<br>781 | ATL8C9<br>500:12<br>42..22<br>39 | gap2 | ATCEA4<br>C29794<br>_10 | 83 |  | ATL8C9<br>500:12<br>42..22<br>30 | 0.65 |  | g45593<br>54 | 59 | 1744 | 8.4e-<br>05  | (AC006<br>585)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161842 | ATU023<br>782 | ATL8C1<br>7271:1<br>..2239       | gap2 | ATCEA4<br>S35841        | 83 |  | ATL8C1<br>7271:5<br>7..206<br>0  | 0.89 |  | g48357<br>52 | 57 | 1434 | 6.0e-<br>126 | (AC007<br>202)<br>Is a<br>member<br>of the<br>PF1000<br>69<br>Eukary<br>otic<br>protei<br>n<br>kinase<br>family<br>.<br>ESTs<br>gb T46<br>484,<br>gb AF0<br>66875<br>and<br>gb N96 |

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| 161843 | ATU023<br>783 | ATL8C9<br>331:11<br>59..51 | gap2 | ATCEA4<br>S12243 | 83 | ATL8C9<br>331:11<br>59..16<br>3 | 0.75 | g32184<br>67 | 57 | 151 | 1.9e-<br>12 | (AJ006<br>529)<br>putati<br>ve<br>phosph<br>atase<br>[Gallu<br>s<br>gallus<br>]   | 237<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161844 | ATU023<br>784 | ATL8C9<br>672:88<br>3..110 | gap2 | ATCEA4<br>S12320 | 83 | ATL8C9<br>672:75<br>3..574      | 0.74 | g40564<br>40 | 57 | 787 | 1.7e-<br>61 | (AC005<br>990)<br>Simila<br>r to<br>OBP32p<br>ep<br>protei<br>n<br>gb U37<br>698<br>from<br>Arabid<br>opsis<br>thalia<br>na.<br>[Arabi<br>dopsis<br>thalia<br>na] | (Z9733<br>9)  |
| 161845 | ATU023<br>785 | ATL8C3<br>7332:1           | gap2 | ATCEA4<br>S30891 | 83 |                                 |      | g22449<br>49 | 57 | 545 |             |   |   |





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| 161849 | ATU023<br>789 | ATL8C3<br>7684:9<br>22..1  | gap2 | ATCEA4<br>C78663<br>_1  | 83 |  | ATL8C3<br>7684:8<br>03..65       | 0.68 | g44553<br>57 | 55 | 469  | 3.7e-<br>42  | isolog<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL035<br>524)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 161850 | ATU023<br>790 | ATL8C4<br>7516:1<br>390..1 | gap2 | ATCEA4<br>S6706         | 83 |  | ATL8C4<br>7516:1<br>338..3<br>73 | 0.57 | g22449<br>00 | 54 | 1194 | 2.9e-<br>109 | (Z9733<br>8)<br>simila<br>rity<br>to<br>hypoth<br>etical<br>protei<br>n HYP1<br>-<br>Arabid<br>opsis<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161851 | ATU023<br>791 | ATL8C1<br>9339:1<br>171..1 | gap2 | ATCEA4<br>C11841<br>8_1 | 83 |  | ATL8C1<br>9339:6<br>12..31<br>0  | 0.71 | g48039<br>38 | 53 | 973  | 4.1e-<br>97  | (AC006<br>264)<br>putati<br>ve<br>aromat<br>ic<br>amino<br>acid<br>permea   |

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| 161852 | ATU023<br>792 | ATL8C1<br>0948:1<br>240..1       | gap2 | ATCEA4<br>S12719                                  | 83     |  | ATL8C1<br>0948:1<br>181..8<br>1  | 0.50 |  | g30565<br>87 | 53 | 1869 | 1.1e-<br>180 | (AC004<br>255)<br>T1F9.8<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 161853 | ATU023<br>793 | ATL8C3<br>4010:1<br>620..6<br>84 | gap2 | ATCEA4<br>C475_1                                  | 83     |  | ATL8C3<br>4010:1<br>484..7<br>99 | 0.90 |  | g40068<br>70 | 51 | 821  | 8.2e-<br>89  | (Z9970<br>7)<br>patati<br>n-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161854 | ATU023<br>794 | ATL8C3<br>0406:3<br>624..5<br>70 | gap2 | ATCEA4<br>C17251<br>_1,<br>ATCEA4<br>C43153<br>_1 | 83, 82 |  | ATL8C3<br>0406:3<br>451..5<br>70 | 0.95 |  | g45079<br>43 | 50 | 739  | 1.6e-<br>47  | export<br>in l<br>(CRM1,<br>yeast,<br>homolo<br>g)<br>[Homo<br>sapien<br>s]            |
| 161855 | ATU023<br>795 | ATL8C4<br>5075:1<br>452..1       | gap2 | ATCEA4<br>C32769<br>_1                            | 83     |  | ATL8C4<br>5075:1<br>243..1<br>22 | 0.87 |  | g26739<br>14 | 50 | 939  | 4.7e-<br>92  | (AC002<br>561)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 161856 | ATU023<br>796 | ATL8C1<br>1874:1<br>218..1 | gap2 | ATCEA4<br>C17246<br>_1,<br>ATCEA4<br>C3222_1 | 83, 83 | ATL8C1<br>1874:4<br>60..31<br>5 | 0.83 | g46783<br>86 | 49 | 194 | 1.3e-<br>19 | na]<br>(AL049<br>656)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 161857 | ATU023<br>797 | ATL8C3<br>1947:1<br>226..1 | gap2 | ATCEA4<br>C605_1                             | 83     | ATL8C3<br>1947:8<br>03..72      | 0.74 | g30804<br>33 | 49 | 958 | 1.7e-<br>95 | (AL022<br>605)<br>putati<br>ve<br>gamma-<br>glutam<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161858 | ATU023<br>798 | ATL8C4<br>8063:9<br>63..1  | gap2 | ATCEA4<br>C30985<br>_1                       | 83     | ATL8C4<br>8063:8<br>52..69      | 0.74 | g35488<br>02 | 49 | 777 | 9.6e-<br>73 | (AC005<br>313)<br>axi 1-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 161859 | ATU023<br>799 | ATL8C9<br>206:1.<br>.927   | gap2 | ATCEA4<br>S30035                             | 83     | ATL8C9<br>206:20<br>8..792      | 0.58 | g34510<br>70 | 49 | 104 |             | (AL031<br>326)<br>putati<br>ve<br>protei<br>n  |

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|        |               |                            |      |                   |    |                                 |      |              |    |      |              |  |    |      |              | [Arabi<br>dopsis<br>thalia<br>na]  |
| 161860 | ATU023<br>800 | ATL8S1<br>2693:1<br>..271  | gap2 | ATCEA4<br>C3967_1 | 83 |                                 |      |              |    |      |              | g24936<br>96                                     | 49 | 303  | 3.4e-<br>26  | HYPOTH<br>ETICAL<br>21.5<br>KD<br>PROTEI<br>N (ORF<br>185)<br>[Brass<br>ica<br>olerac<br>ea]                                     |
| 161861 | ATU023<br>801 | ATL8C2<br>4284:9<br>81..1  | gap2 | ATCEA4<br>S31256  | 83 |                                 |      |              |    |      |              | g21297<br>35                                     | 49 | 1447 | 2.2e-<br>148 | serine<br>/threo<br>nine-<br>specif<br>ic<br>kinase<br>(EC<br>2.7.1.<br>-)<br>precur<br>sor -<br>Arabid<br>opsis<br>thalia<br>na |
| 161862 | ATU023<br>802 | ATL8C4<br>9400:1<br>..1678 | gap2 | ATCEA4<br>C1985_1 | 83 | ATL8C4<br>9400:8<br>4..155<br>4 | 0.80 | g31525<br>74 | 48 | 1494 | 3.2e-<br>119 | (AC002<br>986)<br>Strong<br>simila<br>rity<br>to |    |      |              |  |



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| 161863 | ATU023<br>803 | ATL8C6<br>671:25<br>66..36<br>21 | gap2 | ATCEA4<br>S5637  | 83 | ATL8C6<br>671:29<br>14..35<br>77 | 0.73 | g44067<br>89 | 48 | 1049 | 6.0e-<br>111 | tha...<br>[AC006<br>532)<br>putati<br>ve<br>glutam<br>ate<br>decarb<br>oxylas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161864 | ATU023<br>804 | ATL8C4<br>2828:1<br>03..18<br>24 | gap2 | ATCEA4<br>S12319 | 83 |                                  |      | g42621<br>75 | 48 | 185  | 2.1e-<br>15  | (AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161865 | ATU023<br>805 | ATL8S2<br>0882:4<br>92..1        | gap2 | ATCEA4<br>S31331 | 83 | ATL8S2<br>0882:4<br>84..37<br>1  | 0.98 | g30045<br>49 | 47 | 297  | 2.6e-<br>30  | (AC003<br>673)<br>unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 161866 | ATU023<br>806 | ATL8C2<br>7926:8<br>00..54<br>9  | gap2 | ATCEA4<br>S30164 | 83 | ATL8C2<br>7926:6<br>46..54<br>9  | 0.96 | g26959<br>25 | 47 | 156  |              | (AJ222<br>776)<br>hypoth<br>etical<br>protei<br>n<br>[Horde<br>um]  |

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| 161867 | ATU023<br>807 | ATL8S1<br>5272:1<br>..479         | gap2 | ATCEA4<br>C54574<br>_1              | 83     | ATL8S1<br>5272:8<br>1..418 | 0.71 | g12796<br>40 | 47 | 267  | 1.9e-<br>26 | vulgar<br>el<br>(X9220<br>4) NAM<br>[Petun<br>ia x<br>hybrid<br>al]                                     |
| 161868 | ATU023<br>808 | ATL8C6<br>774:1.<br>.1196         | gap2 | ATCEA4<br>S7943,<br>ATCEA4<br>S6668 | 83, 83 | ATL8C6<br>774:15<br>2..694 | 0.44 | g45593<br>54 | 47 | 1109 | 2.9e-<br>05 | (AC006<br>585)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 161869 | ATU023<br>809 | ATL8C2<br>1686:4<br>341..3<br>705 | gap2 | ATCEA4<br>S1483                     | 83     |                            |      | g43357<br>61 | 47 | 230  | 7.5e-<br>20 | (AC006<br>284)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 161870 | ATU023<br>810 | ATL8C3<br>83:116<br>2..1          | gap2 | ATCEA4<br>S17997                    | 83     |                            |      | g41851<br>39 | 47 | 771  | 4.5e-<br>77 | (AC005<br>724)<br>putati<br>ve<br>diacyl<br>glycer<br>ol<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |

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|--------|---------------|-----------------------------------|------|--|--------|----------------------------------|------|--------------|----|------|---|
| 161871 | ATU023<br>811 | ATL8C2<br>7636:1<br>..1033        | gap2 | ATCEA4<br>S5273,<br>ATCEA4<br>C48910<br>_1 | 83, 83 | ATL8C2<br>7636:8<br>8..679       | 0.85 | g21911<br>84 | 46 | 712  | (AF007<br>271)<br>Simila<br>r to<br>sodium<br>/hydro<br>gen<br>exchan<br>ger;<br>coded<br>for by<br>A.<br>thalia<br>na<br>cDNA<br>T75860<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161872 | ATU023<br>812 | ATL8C3<br>7157:1<br>681..3<br>06  | gap2 | ATCEA4<br>S12338                           | 83     | ATL8C3<br>7157:1<br>307..3<br>06 | 0.72 | g45393<br>86 | 46 | 1939 | (AL035<br>526)<br>extens<br>in-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161873 | ATU023<br>813 | ATL8C1<br>6007:2<br>234..1<br>452 | gap2 | ATCEA4<br>S15186                           | 83     |                                  |      | g45899<br>65 | 45 | 506  | (AC007<br>169)<br>putati<br>ve<br>glyoxa<br>lase<br>II<br>[Arabi<br>dopsis  |



|        |               |                            |      |                        |    |  |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------|------|------------------------|----|--|----------------------------------|------|--------------|----|------|-------------|--|
| 161874 | ATU023<br>814 | ATL8S3<br>882:10<br>0..502 | gap2 | ATCEA4<br>S2815        | 83 |  | ATL8S3<br>882:10<br>0..479       | 0.79 | g39158<br>42 | 44 | 327  | 7.1e-<br>35 | thalia<br>nal<br>RAS-<br>RELATE<br>D<br>PROTEI<br>N<br>RAB11A<br>[Arabi<br>dopsis<br>thalia<br>nal]              |
| 161875 | ATU023<br>815 | ATL8C4<br>3597:1<br>185..1 | gap2 | ATCEA4<br>C34137<br>_1 | 83 |  | ATL8C4<br>3597:1<br>185..7<br>0  | 0.74 | g34618<br>48 | 44 | 1518 |             | (AC005<br>315)<br>putati<br>ve<br>ATPase<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 161876 | ATU023<br>816 | ATL8C4<br>4108:1<br>..1144 | gap2 | ATCEA4<br>S32614       | 83 |  | ATL8C4<br>4108:2<br>57..11<br>44 | 0.68 | g14193<br>90 | 44 | 700  | 1.0e-<br>44 | (X9892<br>6)<br>thylak<br>oid-<br>bound<br>ascorb<br>ate<br>peroxi<br>dase<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 161877 | ATU023<br>817 | ATL8C3<br>5729:1<br>..335  | gap2 | ATCEA4<br>C2655<br>_4  | 83 |  |                                  |      | g22621<br>67 | 43 | 301  | 1.3e-<br>24 | (AC002<br>329)<br>cytoso<br>lic<br>riboso<br>mal   |

|        |               |                                  |      |                   |    |  |  |  |  |              |    |     |             |  |
|--------|---------------|----------------------------------|------|-------------------|----|--|--|--|--|--------------|----|-----|-------------|--|
| 161878 | ATU023<br>818 | ATL8C3<br>9207:1<br>..916        | gap2 | ATCEA4<br>S32539  | 83 |  |  |  |  | g41153<br>76 | 42 | 750 | 1.5e-<br>73 | protein S4<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>967)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161879 | ATU023<br>819 | ATL8C4<br>2015:8<br>37..26<br>37 | gap2 | ATCEA4<br>S3937   | 83 |  |  |  |  | g47739<br>10 | 42 | 328 | 8.8e-<br>32 | (AF147<br>259)<br>No<br>definition<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 161880 | ATU023<br>820 | ATL8C4<br>6913:9<br>70..36<br>3  | gap2 | ATCEA4<br>S27853  | 83 |  |  |  |  | g45858<br>72 | 42 | 545 | 9.5e-<br>55 | (AC005<br>850)<br>Hypothetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 161881 | ATU023<br>821 | ATL8S2<br>0867:4<br>25..1        | gap2 | ATCEA4<br>C1870_1 | 83 |  |  |  |  | g42067<br>89 | 41 | 373 | 6.1e-<br>30 | (AF112<br>864)<br>syntax   |

|        |               |                                   |      |                  |    |                                  |      |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|------|------------------|----|----------------------------------|------|--|--|--|--------------|----|------|--------------|--|
| 161882 | ATU023<br>822 | ATL8C1<br>7626:4<br>778..4<br>461 | gap2 | ATCEA4<br>S33845 | 83 |                                  |      |  |  |  | g11278<br>5  | 41 | 148  | 2.3e-<br>10  | DNA-3-<br>METHYL<br>ADENIN<br>E<br>GLYCOS<br>IDASE<br>I (3-<br>METHYL<br>ADENIN<br>E-DNA<br>GLYCOS<br>YLASE<br>I,<br>CONSTITUTIVE<br>) (TAG<br>I)<br>[Esche<br>richia<br>coli] |
| 161883 | ATU023<br>823 | ATL8C1<br>3000:1<br>423..1        | gap2 | ATCEA4<br>S31467 | 83 | ATL8C1<br>3000:1<br>073..3<br>10 | 0.86 |  |  |  | g19316<br>41 | 39 | 1522 | 4.2e-<br>134 | (U9597<br>3)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |

|        |               |                                  |      |                  |    |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------------|------|------------------|----|----------------------------------|------|--------------|----|------|-------------|--|
| 161884 | ATU023<br>824 | ATL8C2<br>0624:4<br>226..5<br>75 | gap2 | ATCEA4<br>S10347 | 83 | ATL8C2<br>0624:3<br>907..5<br>75 | 0.63 | g32490<br>77 | 39 | 682  | 1.2e-<br>61 | (AC004<br>473)<br>Simila<br>r to<br>prunas<br>in<br>hydrol<br>ase<br>precu<br>sor<br>gb U50<br>201<br>from<br>Prunus<br>seroti<br>na.<br>ESTs<br>gb T21<br>225<br>and<br>gb AA5<br>86305<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161885 | ATU023<br>825 | ATL8C1<br>0274:8<br>12..1        | gap2 | ATCEA4<br>S30836 | 83 | ATL8C1<br>0274:7<br>74..32<br>9  | 0.45 | g22447<br>95 | 39 | 1109 |             | (Z9733<br>6)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |

|        |               |                            |      |                                   |        |                                 |      |  |              |    |     |             |  |
|--------|---------------|----------------------------|------|-----------------------------------|--------|---------------------------------|------|--|--------------|----|-----|-------------|--|
| 161886 | ATU023<br>826 | ATL8C4<br>9852:1<br>140..1 | gap2 | ATCEA4<br>C79637<br>_1            | 83     |                                 |      |  | g45876<br>12 | 39 | 72  | 0.29        | (AC006<br>951)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161887 | ATU023<br>827 | ATL8C4<br>2581:9<br>94..1  | gap2 | ATCEA4<br>S20305                  | 83     | ATL8C4<br>2581:9<br>40..28<br>6 | 0.91 |  | g22307<br>57 | 38 | 434 | 4.7e-<br>46 | (Y1196<br>9)<br>dnaJ-<br>like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 161888 | ATU023<br>828 | ATL8S1<br>6698:5<br>84..49 | gap2 | ATCEA4<br>S414,<br>ATCEA4<br>S698 | 83, 83 | ATL8S1<br>6698:4<br>85..49      | 0.89 |  | g34349<br>73 | 37 | 194 | 1.5e-<br>17 | (AB008<br>106)<br>ethylene<br>response<br>element<br>binding<br>factor<br>4<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161889 | ATU023<br>829 | ATL8S2<br>7105:1<br>..619  | gap2 | ATCEA4<br>S33453                  | 83     |                                 |      |  | g40565<br>05 | 37 | 69  | 0.0011      | (AC005<br>896)<br>noduli<br>n-like   |

|        |               |                                 |      |                        |    |  |  |  |  |                            |              |    |      |              |   |
|--------|---------------|---------------------------------|------|------------------------|----|--|--|--|--|----------------------------|--------------|----|------|--------------|---|
| 161890 | ATU023<br>830 | ATL8C1<br>5945:1<br>..556       | gap2 | ATCEA4<br>S10686       | 83 |  |  |  |  |                            | g34618<br>17 | 37 | 162  | 1.3e-<br>18  | protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 161891 | ATU023<br>831 | ATL8S7<br>047:24<br>6..1        | gap2 | ATCEA4<br>C17868<br>_1 | 83 |  |  |  |  | ATL8S7<br>047:17<br>4..50  | g11756<br>14 | 36 | 64   | 0.40         | ISOAMY<br>L<br>ACETAT<br>E-<br>HYDROL<br>YZING<br>ESTERA<br>SE<br>[Sacch<br>aromyc<br>es<br>cerevi<br>siae] |
| 161892 | ATU023<br>832 | ATL8C1<br>4775:5<br>157..7<br>0 | gap2 | ATCEA4<br>S33179       | 83 |  |  |  |  | ATL8C1<br>4775:9<br>89..70 | g44328<br>02 | 36 | 1274 | 1.5e-<br>136 | (AC006<br>437)<br>putati<br>ve pol<br>polypr<br>oteins,<br>5'<br>partia<br>l<br>[Arabi<br>dopsis            |

|        |               |                            |      |  |        |                                   |      |              |    |     |             |  |
|--------|---------------|----------------------------|------|--|--------|-----------------------------------|------|--------------|----|-----|-------------|--|
| 161893 | ATU023<br>833 | ATL8C4<br>7165:1<br>..1821 | gap2 | ATCEA4<br>C615_1<br>,<br>ATCEA4<br>S7095 | 83, 83 | ATL8C4<br>7165:1<br>218..1<br>446 | 0.72 | g22307<br>57 | 36 | 508 | 4.5e-<br>43 | thalia<br>na]<br>(Y1196<br>9)<br>dnaJ-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161894 | ATU023<br>834 | ATL8S2<br>0347:1<br>..485  | gap2 | ATCEA4<br>C5173_1                        | 83     | ATL8S2<br>0347:1<br>30..29<br>6   | 0.60 | g47551<br>89 | 36 | 631 | 3.8e-<br>53 | (AC007<br>018)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 161895 | ATU023<br>835 | ATL8S8<br>529:56<br>8..1   | gap2 | ATCEA4<br>C57357<br>_1                   | 83     | ATL8S8<br>529:34<br>5..93         | 0.50 | g26606<br>73 | 36 | 446 | 3.7e-<br>38 | (AC002<br>342)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 161896 | ATU023<br>836 | ATL8S1<br>318:9.<br>.513   | gap2 | ATCEA4<br>S11082                         | 83     |                                   |      | g36953<br>96 | 36 | 530 | 9.1e-<br>42 | (AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to   |

|        |               |                            |      |                        |    |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|----------------------------|------|------------------------|----|--|--|--|--|--|--------------|----|-----|-------------|---|
| 161897 | ATU023<br>837 | ATL8C2<br>4865:1<br>..1000 | gap2 | ATCEA4<br>C17845<br>_1 | 83 |  |  |  |  |  | g26424<br>48 | 36 | 533 | 7.1e-<br>48 | Arabidopsis thaliana retrotransposon Athila (GB:X81801) [Arabidopsis thaliana] (AC002391) hypothetical protein [Arabidopsis thaliana] |
| 161898 | ATU023<br>838 | ATL8C4<br>7794:1<br>638..1 | gap2 | ATCEA4<br>S11533       | 83 |  |  |  |  |  | g38505<br>88 | 35 | 366 | 1.3e-<br>32 | (AC005278) Containing similarity to gb AB011110 KIAA0538 protein from Humans  |



|        |               |                           |      |                        |    |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------|------|------------------------|----|---------------------------------|------|--------------|----|-----|-------------|---|
| 161899 | ATU023<br>839 | ATL8S1<br>8831:1<br>..480 | gap2 | ATCEA4<br>C14652<br>_1 | 83 | ATL8S1<br>8831:1<br>02..33<br>9 | 0.69 | g40068<br>72 | 35 | 166 | 7.5e-<br>17 | (Z9970<br>7)<br>methio<br>nyl<br>aminop<br>eptida<br>se-<br>like,<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161900 | ATU023        | ATL8S1                    | gap2 | ATCEA4                 | 83 |                                 |      | g11451       | 35 | 336 | 1.6e-       | ATP   |

|        |               |                            |      |                        |    |  |                            |      |              |    |     |             |  |
|--------|---------------|----------------------------|------|------------------------|----|--|----------------------------|------|--------------|----|-----|-------------|--|
|        | 840           | 0537:1<br>..541            |      | C37234<br>_1           |    |  |                            |      | 8            |    |     | 26          | SYNTHA<br>SE<br>ALPHA<br>CHAIN<br>[Zea<br>mays]  |
| 161901 | ATU023<br>841 | ATL8C4<br>3425:1<br>474..1 | gap2 | ATCEA4<br>C19408<br>_1 | 83 |  |                            |      | g11685<br>30 | 35 | 247 |             | SERINE<br>/THREO<br>NINE-<br>PROTEI<br>N<br>KINASE<br>ASK2<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 161902 | ATU023<br>842 | ATL8C9<br>176:1.<br>.1296  | gap2 | ATCEA4<br>C43514<br>_1 | 83 |  | ATL8C9<br>176:13<br>0..909 | 0.95 | g48268<br>82 | 34 | 104 |             | nuclea<br>r<br>matrix<br>protei<br>n p84<br>[Homo<br>sapien<br>s]  |
| 161903 | ATU023<br>843 | ATL8S1<br>83:567<br>..1    | gap2 | ATCEA4<br>S13487       | 83 |  | ATL8S1<br>83:476<br>..7    | 0.76 | g30333<br>81 | 34 | 540 | 2.7e-<br>57 | (AC004<br>238)<br>putati<br>ve<br>UDP-<br>galact<br>ose-4-<br>epimer<br>ase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161904 | ATU023<br>844 | ATL8C3<br>5098:1           | gap2 | ATCEA4<br>C28461       | 83 |  | ATL8C3<br>5098:1           | 0.60 | g47261<br>19 | 34 | 458 | 1.4e-<br>39 | (AC006<br>436)   |

|        |               |                            |      |                       |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------|---------------|----------------------------|------|-----------------------|----|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 161905 | ATU023<br>845 | ATL8C9<br>503:58<br>0..212 | gap2 | ATCEA4<br>S3569       | 83 |  |  |  |  |  |  |  |  |  |  |  |  | putative<br>somatic<br>embryo<br>genesis<br>receptor-<br>like<br>kinase<br>[Arabidopsis<br>thaliana] |
| 161906 | ATU023<br>846 | ATL8C2<br>0904:7<br>79..1  | gap2 | ATCEA4<br>S451        | 83 |  |  |  |  |  |  |  |  |  |  |  |  | (AL035528)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana]                                   |
| 161907 | ATU023<br>847 | ATL8C2<br>6719:1<br>..809  | gap2 | ATCEA4<br>C81763<br>1 | 83 |  |  |  |  |  |  |  |  |  |  |  |  | (AC003105)<br>putative<br>nitrate<br>transporter<br>[Arabidopsis<br>thaliana]                        |
|        |               |                            |      |                       |    |  |  |  |  |  |  |  |  |  |  |  |  | (AL021932)<br>uflaA1   |

|        |               |                           |      |                        |    |  |  |                            |      |  |              |    |     |             |   |
|--------|---------------|---------------------------|------|------------------------|----|--|--|----------------------------|------|--|--------------|----|-----|-------------|---|
| 161908 | ATU023<br>848 | ATL8S9<br>308:43<br>8..1  | gap2 | ATCEA4<br>C28040<br>_1 | 83 |  |  |                            |      |  | g36183<br>20 | 34 | 404 | 2.8e-<br>36 | (AB001<br>888)<br>zinc<br>finger<br>protein<br>[Oryza<br>sativa<br>]  |
| 161909 | ATU023<br>849 | ATL8C1<br>6125:5<br>60..1 | gap2 | ATCEA4<br>S2524        | 83 |  |  | ATL8C1<br>6125:4<br>65..15 | 0.89 |  | g46782<br>16 | 33 | 117 | 1.0e-<br>08 | (AC007<br>134)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |
| 161910 | ATU023<br>850 | ATL8C4<br>7101:1<br>..580 | gap2 | ATCEA4<br>S13631       | 83 |  |  | ATL8C4<br>7101:4<br>7..394 | 0.73 |  | g22621<br>63 | 33 | 410 | 1.3e-<br>43 | (AC002<br>329)<br>hypoth<br>etical<br>protein<br>simila<br>r to<br>F5J6.1<br>0<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161911 | ATU023        | ATL8C2                    | gap2 | ATCEA4                 | 83 |  |  | ATL8C2                     | 0.65 |  | g34829       | 33 | 662 | 2.2e-       | (AC003  |

|        |               |                                  |      |                   |    |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|------|-------------------|----|----------------------------------|------|--------------|----|-----|-------------|--|
| 161912 | 851           | 547:70<br>9..1                   | gap2 | ATCEA4<br>C7417_1 | 83 | ATL8C1<br>7068:2<br>022..54      | 0.40 | 939278<br>25 | 33 | 205 | 1.9e-<br>16 | 970)<br>Putati<br>ve<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161913 | ATU023<br>853 | ATL8C8<br>208:21<br>85..16<br>10 | gap2 | ATCEA4<br>S35645  | 83 | ATL8C8<br>208:21<br>53..16<br>10 | 0.99 | 929824<br>62 | 31 | 307 | 4.3e-<br>27 | (AL022<br>223)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161914 | ATU023<br>854 | ATL8S2<br>1414:1<br>..521        | gap2 | ATCEA4<br>S31819  | 83 |                                  |      | 945670<br>95 | 31 | 291 | 8.8e-<br>25 | (AF129<br>516)<br>fertil<br>izatio<br>n-<br>indepe<br>ndent                        |

|        |               |                           |      |                                      |        |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------|------|--------------------------------------|--------|---------------------------------|------|--------------|----|-----|-------------|---|
| 161915 | ATU023<br>855 | ATL8C2<br>5303:8<br>09..1 | gap2 | ATCEA4<br>C1984_1,<br>ATCEA4<br>S863 | 83, 82 | ATL8C2<br>5303:5<br>92..21      | 0.94 | g21467<br>32 | 30 | 593 | 8.7e-<br>64 | FK506-<br>bindin<br>g protei<br>n -<br>Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161916 | ATU023<br>856 | ATL8C4<br>6670:4<br>99..1 | gap2 | ATCEA4<br>S2421                      | 83     | ATL8C4<br>6670:4<br>49..20<br>4 | 0.89 | g52970<br>7  | 30 | 131 | 1.2e-<br>09 | (U1307<br>0) No<br>defini<br>tion<br>line<br>found<br>[Caeno<br>rhabdi<br>tis;<br>elegan<br>s]              |
| 161917 | ATU023<br>857 | ATL8C4<br>2105:1<br>..804 | gap2 | ATCEA4<br>S30952                     | 83     | ATL8C4<br>2105:6<br>6..544      | 0.84 | g34618<br>39 | 30 | 450 | 2.4e-<br>46 | (AC005<br>315)<br>putati<br>vé<br>recept<br>or<br>protei<br>n   |

|        |               |                                  |      |                       |        |                                 |      |              |    |     |             |  |
|--------|---------------|----------------------------------|------|-----------------------|--------|---------------------------------|------|--------------|----|-----|-------------|--|
| 161918 | ATU023<br>858 | ATL8C3<br>1713:1<br>..624        | gap2 | ATCEA4<br>S4765       | 83     | ATL8C3<br>1713:5<br>6..596      | 0.64 | g40380<br>43 | 30 | 683 | 1.5e-<br>62 | kinase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>936)<br>putati<br>ve<br>DNA-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161919 | ATU023<br>859 | ATL8C8<br>920:1.<br>.840         | gap2 | ATCEA4<br>S5905       | 83     | ATL8C8<br>920:16<br>3..840      | 0.99 |              |    |     |             |  |
| 161920 | ATU023<br>860 | ATL8C2<br>1649:1<br>100..8<br>68 | gap2 | ATCEA4<br>S10478      | 83     | ATL8C2<br>1649:9<br>89..86<br>8 | 0.98 |              |    |     |             |  |
| 161921 | ATU023<br>861 | ATL8S2<br>033:1.<br>.181         | gap2 | ATCEA4<br>S12228      | 83     | ATL8S2<br>033:42<br>..159       | 0.97 |              |    |     |             |  |
| 161922 | ATU023<br>862 | ATL8C3<br>2386:8<br>0..920       | gap2 | ATCEA4<br>S2593       | 83     | ATL8C3<br>2386:8<br>0..920      | 0.95 |              |    |     |             |  |
| 161923 | ATU023<br>863 | ATL8C6<br>804:17<br>6..907       | gap2 | ATCEA4<br>C9880_<br>1 | 83     | ATL8C6<br>804:48<br>0..671      | 0.95 |              |    |     |             |  |
| 161924 | ATU023<br>864 | ATL8C4<br>3960:1<br>12..13<br>11 | gap2 | ATCEA4<br>C874_<br>1  | 83     | ATL8C4<br>3960:1<br>25..72<br>6 | 0.95 |              |    |     |             |  |
| 161925 | ATU023<br>865 | ATL8C1<br>5553:1                 | gap2 | ATCEA4<br>C32368      | 83, 82 | ATL8C1<br>5553:2                | 0.94 |              |    |     |             |  |











|        |               |                                   |      |   |        |                                   |      |                |                    |   |  |  |  |
|--------|---------------|-----------------------------------|------|---|--------|-----------------------------------|------|----------------|--------------------|---|--|--|--|
| 161966 | ATU023<br>906 | ATL8C4<br>3372:3<br>61..10<br>99  | gap2 | ATCEA4<br>S6599                             | 83     | ATL8C4<br>3372:3<br>61..10<br>99  | 0.75 |                |                    |   |  |  |  |
| 161967 | ATU023<br>907 | ATL8C3<br>6630:2<br>09..10<br>16  | gap2 | ATCEA4<br>C18433<br>_1                      | 83     | ATL8C3<br>6630:2<br>09..10<br>16  | 0.75 |                |                    |   |  |  |  |
| 161968 | ATU023<br>908 | ATL8C5<br>753:63<br>1..396        | gap2 | ATCEA4<br>S14826                            | 83     | ATL8C5<br>753:63<br>1..530        | 0.74 |                |                    |   |  |  |  |
| 161969 | ATU023<br>909 | ATL8C2<br>2880:5<br>93..48<br>06  | gap2 | ATCEA4<br>C34738<br>_1,<br>ATCEA4<br>S24841 | 82, 82 | ATL8C2<br>2880:8<br>05..42<br>75  | 0.74 | 100,<br>84     | 582,<br>824        | 1.0e-<br>57,<br>3.2e-<br>83                 | (AF000<br>378)<br>beta-<br>glucos<br>idase<br>[Glyci<br>ne<br>max];<br>(Z6925<br>7)<br>beta-<br>xylosi<br>dase<br>[Hypoc<br>rea<br>jecori<br>na] |  |  |
| 161970 | ATU023<br>910 | ATL8C2<br>9974:5<br>069..1<br>212 | gap2 | ATCEA4<br>S20314<br>,<br>ATCEA4<br>C281_1   | 82, 82 | ATL8C2<br>9974:4<br>918..1<br>243 | 0.74 | 100,<br>56, 48 | 926,<br>795,<br>95 | 2.2e-<br>79,<br>2.2e-<br>78,<br>0.0002<br>3 | (AF132<br>475)<br>heme<br>oxygen<br>ase 1<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC002<br>291)<br>Unknow                                      |  |  |

|        |               |                                  |      |   |        |                                  |      |  |  |  |  |  |   |
|--------|---------------|----------------------------------|------|---|--------|----------------------------------|------|--|--|--|--|--|---|
| 161971 | ATU023<br>911 | ATL8C1<br>297:65<br>2..120       | gap2 | ATCEA4<br>C18115<br>1                     | 83     | ATL8C1<br>297:65<br>2..131       | 0.74 |  |  |  |  |  | n<br>protei<br>n,<br>contai<br>ns<br>regula<br>tor of<br>chromo<br>some<br>conden<br>sation<br>motifs<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>314)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 161972 | ATU023<br>912 | ATL8C2<br>3799:1<br>450..4<br>48 | gap2 | ATCEA4<br>S3709                           | 83     | ATL8C2<br>3799:1<br>450..7<br>80 | 0.73 |  |  |  |  |  |   |
| 161973 | ATU023<br>913 | ATL8S2<br>5913:1<br>..639        | gap2 | ATCEA4<br>S27110<br>,<br>ATCEA4<br>S33099 | 83, 82 | ATL8S2<br>5913:1<br>36..26<br>8  | 0.73 |  |  |  |  |  |   |
| 161974 | ATU023<br>914 | ATL8C3<br>8626:1                 | gap2 | ATCEA4<br>S31948                          | 83     | ATL8C3<br>8626:1                 | 0.71 |  |  |  |  |  |   |



|        | ATU023<br>925 | 13<br>ATL8C1<br>007:96<br>3..1    | gap2 | ATCEA4<br>S36215                           | 83     | 13<br>ATL8C1<br>007:93<br>6..608  | 0.66 |              |     |     |             |  |  |
|--------|---------------|-----------------------------------|------|--|--------|-----------------------------------|------|--------------|-----|-----|-------------|--|--|
| 161985 |               |                                   |      |  |        |                                   |      |              |     |     |             |  |  |
| 161986 | ATU023<br>926 | ATL8S8<br>971:1.<br>.306          | gap2 | ATCEA4<br>C13671<br>3 1                    | 83     | ATL8S8<br>971:82<br>..306         | 0.65 |              |     |     |             |  |  |
| 161987 | ATU023<br>927 | ATL8S1<br>4395:6<br>48..16<br>9   | gap2 | ATCEA4<br>C94571<br>1,<br>ATCEA4<br>S29904 | 83, 83 | ATL8S1<br>4395:6<br>33..23<br>1   | 0.65 |              |     |     |             |  |  |
| 161988 | ATU023<br>928 | ATL8C1<br>1043:7<br>39..15<br>0   | gap2 | ATCEA4<br>S2780                            | 83     | ATL8C1<br>1043:3<br>50..15<br>0   | 0.65 |              |     |     |             |  |  |
| 161989 | ATU023<br>929 | ATL8C9<br>497:81<br>8..282        | gap2 | ATCEA4<br>C35606<br>1                      | 83     | ATL8C9<br>497:59<br>0..469        | 0.64 |              |     |     |             |  |  |
| 161990 | ATU023<br>930 | ATL8C3<br>1383:4<br>739..2<br>738 | gap2 | ATCEA4<br>S35782                           | 82     | ATL8C3<br>1383:4<br>739..2<br>738 | 0.63 | g36000<br>58 | 100 | 771 | 6.1e-<br>61 | (AF080<br>120)<br>simila<br>r to<br>vacuol<br>ar<br>ATPase<br>s<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 161991 | ATU023<br>931 | ATL8C2<br>1704:8<br>76..32        | gap2 | ATCEA4<br>S12257                           | 83     | ATL8C2<br>1704:8<br>76..47        | 0.63 |              |     |     |             |  |  |
| 161992 | ATU023<br>932 | ATL8C1<br>8144:2<br>55..84        | gap2 | ATCEA4<br>S7175                            | 83     | ATL8C1<br>8144:2<br>52..84        | 0.62 |              |     |     |             |  |  |
| 161993 | ATU023<br>933 | ATL8C4<br>2488:3<br>45..10        | gap2 | ATCEA4<br>S29911                           | 83     | ATL8C4<br>2488:1<br>088..3        | 0.61 |              |     |     |             |  |  |











| Year | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |      |

[illegible]



















[illegible]

|        |               |                                   |      |                  |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------|---------------|-----------------------------------|------|------------------|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 162144 | ATU024<br>084 | 303..9<br>83                      | gap2 | ATCEA4<br>S11083 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162145 | ATU024<br>085 | ATL8C2<br>3671:1<br>..181         | gap2 | ATCEA4<br>S34537 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162146 | ATU024<br>086 | ATL8C3<br>4781:1<br>139..1<br>014 | gap2 | ATCEA4<br>S12790 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162147 | ATU024<br>087 | ATL8C1<br>599:15<br>52..12<br>79  | gap2 | ATCEA4<br>S32856 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162148 | ATU024<br>088 | ATL8C1<br>9279:2<br>07..1         | gap2 | ATCEA4<br>S19060 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162149 | ATU024<br>089 | ATL8C3<br>4767:3<br>4..347        | gap2 | ATCEA4<br>S26573 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162150 | ATU024<br>090 | ATL8C3<br>2282:1<br>234..1<br>157 | gap2 | ATCEA4<br>S14670 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162151 | ATU024<br>091 | ATL8C9<br>94:456<br>2..405<br>9   | gap2 | ATCEA4<br>S4865  | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162152 | ATU024<br>092 | ATL8C1<br>3026:4<br>743..5<br>241 | gap2 | ATCEA4<br>S29338 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162153 | ATU024<br>093 | ATL8C1<br>4816:4<br>127..4<br>479 | gap2 | ATCEA4<br>S27391 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162154 | ATU024<br>094 | ATL8S2<br>4828:2                  | gap2 | ATCEA4<br>C28058 | 83 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |











[illegible]

[illegible]







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|        |               |                                   |      |                        |    |                                   |      |              |    |      |             |  |
|--------|---------------|-----------------------------------|------|------------------------|----|-----------------------------------|------|--------------|----|------|-------------|--|
| 162293 | ATU024<br>233 | ATL8C3<br>5640:3<br>498..2<br>404 | gap2 | ATCEA4<br>S33986       | 82 | ATL8C3<br>5640:3<br>498..2<br>404 | 0.96 | g11731<br>87 | 99 | 605  | 8.0e-<br>56 | 248)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 162294 | ATU024<br>234 | ATL8C3<br>4278:1<br>..1276        | gap2 | ATCEA4<br>C21453<br>_1 | 82 | ATL8C3<br>4278:6<br>0..127<br>6   | 0.82 | g17084<br>20 | 99 | 1194 | 1.3e-<br>83 | ISOFLA<br>VONE<br>REDUCT<br>ASE<br>HOMOLO<br>G P3<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162295 | ATU024<br>235 | ATL8C1<br>4794:7<br>00..14<br>9   | gap2 | ATCEA4<br>C41409<br>_1 | 82 | ATL8C1<br>4794:2<br>60..14<br>9   | 0.64 | g22666<br>1  | 99 | 148  | 1.2e-<br>07 | trnA<br>intron<br>ORE<br>109<br>[Oryza<br>sativa<br>]                                  |
| 162296 | ATU024<br>236 | ATL8C4<br>8719:1<br>514..6<br>50  | gap2 | ATCEA4<br>S31910       | 82 |                                   |      | g22621<br>76 | 99 | 211  | 5.5e-<br>16 | (AC002<br>329)<br>putati<br>ve   |



|        |               |                                   |      |                        |    |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|------|------------------------|----|-----------------------------------|------|--------------|----|------|--------------|---|
| 162298 | ATU024<br>238 | ATL8C4<br>5616:2<br>048..1<br>472 | gap2 | ATCEA4<br>S30452       | 82 | ATL8C4<br>5616:1<br>909..1<br>472 | 0.51 | g33554<br>68 | 91 | 79   | 0.0008<br>6  | protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162299 | ATU024<br>239 | ATL8C1<br>2863:1<br>723..6<br>79  | gap2 | ATCEA4<br>S8369        | 82 |                                   |      | g31933<br>17 | 90 | 1654 | 7.8e-<br>153 | (AF069<br>299)<br>simila<br>r to<br>plant<br>chalcone<br>and<br>stilbene<br>synthase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162300 | ATU024<br>240 | ATL8C1<br>0976:4<br>070..1<br>545 | gap2 | ATCEA4<br>C64837<br>_1 | 82 | ATL8C1<br>0976:3<br>969..1<br>718 | 0.69 | g46783<br>36 | 88 | 704  | 5.2e-<br>71  | (AL049<br>658)<br>putative<br>protein<br>[Arabi   |

|        |               |                                   |      |                        |    |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|------|------------------------|----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 162301 | ATU024<br>241 | ATL8C3<br>3438:1<br>..2322        | gap2 | ATCEA4<br>C57905<br>_1 | 82 |  |  |  |                                   |      | g38735<br>50 | 86 | 80  | 0.89        | dopsis<br>thalia<br>nal<br>(AL033<br>534)<br>serine<br>-rich<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe] |
| 162302 | ATU024<br>242 | ATL8C3<br>4070:1<br>709..2<br>636 | gap2 | ATCEA4<br>S3569        | 82 |  |  |  | ATL8C3<br>4070:1<br>709..2<br>595 | 0.67 | g44552<br>97 | 85 | 712 | 5.9e-<br>73 | (AL035<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 162303 | ATU024<br>243 | ATL8C2<br>5665:1<br>063..1        | gap2 | ATCEA4<br>C960_1       | 82 |  |  |  |                                   |      | g26687<br>44 | 84 | 406 | 2.1e-<br>41 | (AF034<br>946)<br>ubiqui<br>tin<br>conj<br>ating<br>enzyme<br>[Zea<br>mays]   |
| 162304 | ATU024<br>244 | ATL8C3<br>7230:1<br>..956         | gap2 | ATCEA4<br>S5306        | 82 |  |  |  | ATL8C3<br>7230:3<br>77..95<br>6   | 0.89 | g45862<br>65 | 82 | 563 |             | (AL049<br>640)<br>putati<br>ve<br>protei<br>n<br>[Arabi   |

|        |               |                                  |      |                        |    |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|------|------------------------|----|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 162305 | ATU024<br>245 | ATL8C3<br>6439:1<br>891..1<br>68 | gap2 | ATCEA4<br>S13955       | 82 | ATL8C3<br>6439:1<br>891..1<br>68 | 0.87 | g32876<br>93                  | 82     | 1769        | 8.5e-<br>181                | dopsis<br>thalia<br>nal<br>(AC003<br>979)<br>Simila<br>r to<br>LIM17<br>gene<br>produc<br>t<br>gb 165<br>3769<br>from<br>the<br>genome<br>of<br>Synech<br>ocysti<br>s sp.<br>gb D90<br>916.<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 162306 | ATU024<br>246 | ATL8C2<br>623:33<br>84..19<br>4  | gap2 | ATCEA4<br>C42561<br>_1 | 82 |                                  |      | g33778<br>37,<br>g45126<br>29 | 81, 52 | 465,<br>809 | 9.2e-<br>55,<br>4.9e-<br>84 | (AF075<br>598)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC004<br>793)<br>EST   |



|        |               |                            |      |                        |    |  |  |  |  |  |                               |        |              |                              |   |
|--------|---------------|----------------------------|------|------------------------|----|--|--|--|--|--|-------------------------------|--------|--------------|------------------------------|---|
| 162307 | ATU024<br>247 | ATL8C5<br>730:12<br>7..655 | gap2 | ATCEA4<br>C52513<br>_2 | 82 |  |  |  |  |  | g43357<br>63                  | 78     | 239          |                              | gb Z33<br>866<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162308 | ATU024<br>248 | ATL8C4<br>2261:2<br>617..1 | gap2 | ATCEA4<br>S33179       | 82 |  |  |  |  |  | g42630<br>62,<br>g44328<br>07 | 75, 30 | 405,<br>1452 | 9.7e-<br>40,<br>6.2e-<br>101 | (AC006<br>284)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>142)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>570)<br>putati<br>ve<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                  |      |                        |    |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|------|------------------------|----|----------------------------------|------|--------------|----|------|--------------|--|
| 162309 | ATU024<br>249 | ATL8C1<br>8234:1<br>829..1       | gap2 | ATCEA4<br>S27636       | 82 | ATL8C1<br>8234:1<br>735..1<br>81 | 0.89 | g38920<br>60 | 74 | 1949 | 1.8e-<br>190 | (AC002<br>330)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162310 | ATU024<br>250 | ATL8C2<br>2510:7<br>75..16       | gap2 | ATCEA4<br>S33825       | 82 | ATL8C2<br>2510:5<br>10..18<br>7  | 0.52 | g40564<br>99 | 74 | 332  | 1.9e-<br>24  | (AC005<br>896)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 162311 | ATU024<br>251 | ATL8C1<br>6035:2<br>749..8<br>52 | gap2 | ATCEA4<br>S1006        | 82 | ATL8C1<br>6035:2<br>094..8<br>52 | 0.91 | g42630<br>63 | 73 | 2341 | 1.0e-<br>214 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162312 | ATU024<br>252 | ATL8C1<br>9281:2<br>738..1       | gap2 | ATCEA4<br>C23128<br>_1 | 82 | ATL8C1<br>9281:2<br>186..6<br>2  | 0.73 | g48503<br>99 | 72 | 1443 | 2.8e-<br>102 | (AC007<br>357)<br>F3F19.<br>18<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 162313 | ATU024<br>253 | ATL8C1<br>1585:4                 | gap2 | ATCEA4<br>S33179       | 82 |                                  |      | g42630<br>62 | 72 | 442  | 3.5e-<br>36  | (AC005<br>142)   |

|        |               |                                  |      |                   |    |  |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|------|-------------------|----|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 162314 | ATU024<br>254 | ATL8C4<br>8513:1<br>548..1<br>90 | gap2 | ATCEA4<br>C600_3  | 82 |  | ATL8C4<br>8513:1<br>536..3<br>96 | 0.80 | g22431<br>24                  | 71     | 851         | 1.2e-<br>67                 | (Y1084<br>7) O-<br>acetyl<br>serine<br>(thiol<br>)<br>lyase<br>[Brass<br>ica<br>juncea<br>]  |
| 162315 | ATU024<br>255 | ATL8C4<br>8367:1<br>..2874       | gap2 | ATCEA4<br>C9316_1 | 82 |  | ATL8C4<br>8367:6<br>2..145<br>4  | 0.93 | g18715<br>26,<br>g22528<br>28 | 70, 60 | 704,<br>216 | 2.7e-<br>63,<br>2.5e-<br>08 | (X8199<br>7)<br>leucin<br>e-<br>rich-<br>repeat<br>protei<br>n<br>[Helia<br>nthus<br>annuus<br>];<br>(AF013<br>293)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis |

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| 162316 | ATU024<br>256 | ATL8C8<br>262:12<br>11..47<br>1 | gap2 | ATCEA4<br>S3569  | 82 |   |               |                               |        |              | g44552<br>97                 | 70   | 692 | 9.4e-<br>67 | thalia<br>na]<br>(AL035<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162317 | ATU024<br>257 | ATL8C2<br>2379:1<br>..2684      | gap2 | ATCEA4<br>S33179 | 82 | ATL8C2<br>2379:1<br>7..127<br>8,<br>ATL8C2<br>2379:2<br>414..1<br>713 | 0.76,<br>0.72 | g42630<br>62,<br>g44328<br>07 | 69, 32 | 350,<br>2360 | 7.3e-<br>26,<br>2.6e-<br>209 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>570)<br>putati<br>ve<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na] |     |             |   |
| 162318 | ATU024<br>258 | ATL8C3<br>3314:1<br>256..1      | gap2 | ATCEA4<br>S11948 | 82 | ATL8C3<br>3314:1<br>256..3<br>44                                      | 0.51          | g22136<br>32                  | 69     | 982          | 1.9e-<br>95                  | (AC000<br>103)<br>F21J9.<br>24<br>[Arabi<br>dopsis<br>thalia<br>na]  |     |             |   |

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| 162319 | ATU024<br>259 | ATL8C2<br>205:1.<br>.1195  | gap2 | ATCEA4<br>S203   | 82 |  |                                  |      | g42635<br>45 | 68 | 1046 | 1.1e-<br>101 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162320 | ATU024<br>260 | ATL8C3<br>5003:1<br>..1475 | gap2 | ATCEA4<br>S11809 | 82 |  | ATL8C3<br>5003:2<br>12..14<br>67 | 0.91 | g40380<br>30 | 67 | 513  | 6.0e-<br>50  | (AC005<br>936)<br>putati<br>ve<br>protei<br>n<br>kinase<br>, 5'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 162321 | ATU024<br>261 | ATL8C1<br>9394:1<br>064..1 | gap2 | ATCEA4<br>S34354 | 82 |  | ATL8C1<br>9394:1<br>003..1<br>02 | 0.60 | g45443<br>76 | 67 | 1774 | 3.1e-<br>183 | (AC006<br>920)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162322 | ATU024<br>262 | ATL8C3<br>2418:2           | gap2 | ATCEA4<br>S26452 | 82 |  | ATL8C3<br>2418:2                 | 0.90 | g31933<br>00 | 66 | 1518 | 1.3e-<br>144 | (AF069<br>298)   |

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| 162323 | ATU024<br>263 | ATL8C3<br>0394:1<br>..1966 | gap2 | ATCEA4<br>S27636 | 82 | ATL8C3<br>0394:3<br>3..180<br>7  | 0.43 | g22448<br>64                  | 65     | 1988         | 6.6e-<br>179                 | No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162324 | ATU024<br>264 | ATL8C4<br>1790:8<br>436..1 | gap2 | ATCEA4<br>S11875 | 82 | ATL8C4<br>1790:8<br>161..1<br>94 | 0.68 | g33778<br>34,<br>g42637<br>68 | 64, 34 | 1467,<br>281 | 2.2e-<br>140,<br>5.5e-<br>21 | (Z9733<br>7)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF075<br>598)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 162325 | ATU024<br>265 | ATL8C1<br>3302:1<br>928..1        | gap2 | ATCEA4<br>C2039_1 | 82 | ATL8C1<br>3302:1<br>275..1<br>75 | 0.69 | g24627<br>81 | 63 | 739 | 3.2e-<br>67  | (U7317<br>5)<br>carbam<br>oyl<br>phosph<br>ate<br>synthe<br>tase<br>small<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162326 | ATU024<br>266 | ATL8S1<br>4566:1<br>..417         | gap2 | ATCEA4<br>S29197  | 82 |                                  |      | g22621<br>76 | 63 | 156 | 7.3e-<br>15  | (AC002<br>329)<br>putati<br>ve<br>RING<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 162327 | ATU024<br>267 | ATL8C4<br>1080:1<br>11..88<br>6   | gap2 | ATCEA4<br>S15282  | 82 | ATL8C4<br>1080:1<br>18..72<br>3  | 0.57 | g17031<br>29 | 62 | 936 | 3.8e-<br>101 | ACTIN<br>11<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162328 | ATU024<br>268 | ATL8C1<br>3999:1<br>978..3<br>344 | gap2 | ATCEA4<br>S13040  | 82 |                                  |      | g28530<br>88 | 62 | 235 | 1.4e-<br>08  | (AL021<br>768)<br>hypoth<br>etical<br>protei<br>n   |

|        |               |                                    |      |                        |    |  |                                    |      |                               |        |             |                        |   |
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| 162329 | ATU024<br>269 | ATL8C2<br>499:1.<br>.1375          | gap2 | ATCEA4<br>C26069<br>_1 | 82 |  | ATL8C2<br>499:52<br>..1375         | 0.86 | g40990<br>90                  | 60     | 1309        | 3.9e-<br>130           | [Arabi<br>dopsis<br>thalia<br>nal]<br>(U8317<br>8)<br>unknown<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 162330 | ATU024<br>270 | ATL8C9<br>208:97<br>4..1           | gap2 | ATCEA4<br>S2231        | 82 |  | ATL8C9<br>208:97<br>4..111         | 0.63 | g48039<br>60                  | 60     | 322         |                        | (AC006<br>202)<br>putati<br>ve<br>carbon<br>ic<br>anhydr<br>ase<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 162331 | ATU024<br>271 | ATL8C1<br>7719:1<br>..1018         | gap2 | ATCEA4<br>S12245       | 82 |  | ATL8C1<br>7719:2<br>05..98<br>5    | 0.61 | g28298<br>90                  | 60     | 587         | 4.9e-<br>62            | (AC002<br>396)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]               |
| 162332 | ATU024<br>272 | ATL8C5<br>0077:1<br>0848..<br>7636 | gap2 | ATCEA4<br>S11406       | 82 |  | ATL8C5<br>0077:1<br>0714..<br>9058 | 0.48 | g46999<br>38,<br>g47739<br>10 | 60, 55 | 330,<br>163 | 1.3e-<br>33,<br>0.0082 | (AC007<br>166)<br>hypoth<br>etical<br>protei<br>n   |



|        |               |                                 |      |                  |    |  |  |  |  |                                 |              |    |     |             |  |
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| 162333 | ATU024<br>273 | ATL8S2<br>5681:6<br>69..1       | gap2 | ATCEA4<br>S34354 | 82 |  |  |  |  |                                 | g45443<br>74 | 59 | 521 | 1.7e-<br>61 | [Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162334 | ATU024<br>274 | ATL8C2<br>1413:6<br>82..97<br>7 | gap2 | ATCEA4<br>S22571 | 82 |  |  |  |  |                                 | g47047<br>30 | 59 | 226 | 2.1e-<br>11 | (AC006<br>920)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162335 | ATU024<br>275 | ATL8C1<br>578:13<br>86..37<br>9 | gap2 | ATCEA4<br>S2118  | 82 |  |  |  |  | ATL8C1<br>578:12<br>73..37<br>9 | g38853<br>31 | 58 | 957 | 2.2e-<br>96 | (AF121<br>355)<br>peroxi<br>redoxi<br>n TPx1<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                 |      |                  |    |  |  |  |  |                                 |              |    |     |             | (AC005<br>623)<br>putati<br>ve<br>cytoch<br>rome   |

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| 162336 | ATU024<br>276 | ATL8C1<br>5053:1<br>..4297       | gap2 | ATCEA4<br>S203  | 82 |  |  |  |  |  | g40068<br>33 | 57 | 2522 | 1.2e-<br>263 | p450<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162337 | ATU024<br>277 | ATL8C3<br>2404:1<br>489..1       | gap2 | ATCEA4<br>S3937 | 82 |  |  |  |  |  | g47739<br>10 | 55 | 138  | 4.0e-<br>09  | (AC005<br>970)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162338 | ATU024<br>278 | ATL8C7<br>857:37<br>78..12<br>84 | gap2 | ATCEA4<br>S6559 | 82 |  |  |  |  |  | g45824<br>87 | 55 | 2553 | 3.2e-<br>249 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                |
|        |               |                                  |      |                 |    |  |  |  |  |  |              |    |      |              | (AL021<br>768)<br>resist<br>ence<br>protei<br>n-like<br>[Arabi<br>dopsis<br>thalia<br>na]                   |

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| 162339 | ATU024<br>279 | ATL8C2<br>2861:1<br>..582  | gap2 | ATCEA4<br>S3569        | 82 |                                  |      |  |  |  | g44552<br>97 | 55 | 510  | 8.6e-<br>44  | na]<br>(AL035<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162340 | ATU024<br>280 | ATL8C3<br>6442:1<br>962..1 | gap2 | ATCEA4<br>C18585<br>_1 | 82 | ATL8C3<br>6442:1<br>830..1<br>83 | 0.65 |  |  |  | g22448<br>07 | 53 | 1403 | 7.7e-<br>133 | (Z9733<br>6)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 162341 | ATU024<br>281 | ATL8C2<br>679:1.<br>.754   | gap2 | ATCEA4<br>C32583<br>_1 | 82 | ATL8C2<br>679:69<br>..694        | 0.75 |  |  |  | g31842<br>81 | 52 | 813  | 6.8e-<br>84  | (AC004<br>136)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162342 | ATU024<br>282 | ATL8C3<br>2437:1<br>111..1 | gap2 | ATCEA4<br>C1967<br>_1  | 82 | ATL8C3<br>2437:1<br>018..5<br>38 | 0.74 |  |  |  | g16880<br>72 | 52 | 527  | 4.4e-<br>42  | (U4136<br>9)<br>biotin<br>holoca<br>rboxyl<br>ase<br>synthe<br>tase                           |

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| 162343 | ATU024<br>283 | ATL8C1<br>3212:1<br>712..4<br>83 | gap2 | ATCEA4<br>S15412       | 82 | ATL8C1<br>3212:1<br>673..7<br>36 | 0.94 | g34200<br>52 | 51 | 1054 | 3.1e-<br>75  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC004<br>680)<br>putati<br>ve<br>ubiqin<br>one<br>reduct<br>ase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162344 | ATU024<br>284 | ATL8C2<br>2256:1<br>910..2<br>8  | gap2 | ATCEA4<br>S32287       | 82 | ATL8C2<br>2256:1<br>367..3<br>07 | 0.68 | g46894<br>73 | 51 | 1273 | 5.1e-<br>123 | (AC007<br>213)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 162345 | ATU024<br>285 | ATL8C3<br>0387:1<br>..897        | gap2 | ATCEA4<br>C71650<br>_1 | 82 | ATL8C3<br>0387:1<br>19..84<br>2  | 0.79 | g44552<br>61 | 50 | 521  | 5.9e-<br>61  | (AL035<br>353)<br>protei<br>n<br>kinase<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |

|        |               |                            |      |                  |    |   |               |                               |        |              |                              |  |
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| 162346 | ATU024<br>286 | ATL8C4<br>2062:1<br>..4012 | gap2 | ATCEA4<br>S12828 | 82 | ATL8C4<br>2062:1<br>66..64<br>8,<br>ATL8C4<br>2062:2<br>253..3<br>642 | 0.72,<br>0.97 | g33778<br>16,<br>g42635<br>45 | 49, 32 | 1318,<br>601 | 3.2e-<br>129,<br>5.8e-<br>35 | na]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>250)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(Z9733<br>7)<br>hypoth<br>etical |
| 162347 | ATU024<br>287 | ATL8C1<br>7236:1<br>380..3 | gap2 | ATCEA4<br>S6772  | 82 | ATL8C1<br>7236:7<br>35..10<br>5                                       | 0.55          | g22448<br>64                  | 49     | 1751         | 5.7e-<br>171                 | (Z9733<br>7)<br>hypoth<br>etical   |



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| 162352 | ATU024<br>292 | ATL8C3<br>3749:1<br>349..4<br>373 | gap2 | ATCEA4<br>S980  | 82 | ATL8C3<br>3749:1<br>349..4<br>337 | 0.83 | g28282<br>80 | 47 | 1137 | 9.1e-<br>102 | protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>437)<br>putati<br>ve pol<br>ypr<br>oteins,<br>5',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162353 | ATU024<br>293 | ATL8C3<br>2689:1<br>..1079        | gap2 | ATCEA4<br>S1460 | 82 | ATL8C3<br>2689:4<br>62..10<br>68  | 0.71 | g32692<br>87 | 47 | 601  | 5.9e-<br>67  | (AL030<br>978)<br>GH3<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162354 | ATU024        | ATL8C1                            | gap2 | ATCEA4          | 82 | ATL8C1                            | 0.69 | g21296       | 47 | 962  | 1.2e-        | phosph   |

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| 162355 | 294           | 151:11<br>62..1                  | S11887 |                        | 151:10<br>12..41 | 70                              |      |              | 77 | oinosi<br>tide-<br>specif<br>ic<br>phosph<br>olipas<br>e C -<br>Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na] |             |   |
|        | ATU024<br>295 | ATL8C1<br>3170:1<br>022..1<br>07 | gap2   | ATCEA4<br>C32376<br>_3 | 82               | ATL8C1<br>3170:9<br>24..14<br>5 | 0.65 | g23524<br>92 | 47 | 783  | 2.4e-<br>76 | (AF005<br>047)<br>transp<br>ort<br>inhibi<br>tor<br>respon<br>se l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162356 | ATU024<br>296 | ATL8C9<br>744:94<br>9..1         | gap2   | ATCEA4<br>S25008       | 82               | ATL8C9<br>744:89<br>0..231      | 0.47 | g22621<br>05 | 47 | 909  | 7.0e-<br>86 | (AC002<br>343)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 162357 | ATU024<br>297 | ATL8C4<br>856:1.<br>.1342        | gap2   | ATCEA4<br>S4351        | 82               |                                 |      | g21911<br>53 | 46 | 296  | 7.6e-<br>34 | (AF007<br>269)<br>contai  |



|        |               |                                   |      |                       |    |                                   |      |              |    |      |              |  |
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| 162358 | ATU024<br>298 | ATL8C7<br>323:13<br>20..51<br>8   | gap2 | ATCEA4<br>S26031      | 82 | ATL8C7<br>323:12<br>69..53<br>9   | 0.58 | g22135<br>90 | 45 | 373  | 1.0e-<br>36  | ns<br>similarity<br>to<br>blue<br>copper<br>proteins<br>[Arabidopsis<br>thaliana<br>na]          |
| 162359 | ATU024<br>299 | ATL8C3<br>251:1.<br>.1507         | gap2 | ATCEA4<br>C8001_<br>1 | 82 |                                   |      | g46461<br>98 | 45 | 111  | 2.2e-<br>10  | (AC007<br>230)<br>T23K8.<br>6<br>[Arabidopsis<br>thaliana<br>na]                                 |
| 162360 | ATU024<br>300 | ATL8C3<br>2172:2<br>740..1<br>803 | gap2 | ATCEA4<br>S25010      | 82 | ATL8C3<br>2172:2<br>494..1<br>803 | 0.67 | g21296<br>67 | 44 | 1212 | 2.8e-<br>125 | pectin<br>esterase<br>(EC<br>3.1.1.<br>11) 2<br>precursor -<br>Arabidopsis<br>thaliana<br>(fragm |

|        |               |                            |      |                  |    |  |                                 |      |              |    |      |              |   |
|--------|---------------|----------------------------|------|------------------|----|--|---------------------------------|------|--------------|----|------|--------------|---|
| 162361 | ATU024<br>301 | ATL8C3<br>0773:1<br>078..1 | gap2 | ATCEA4<br>S31550 | 82 |  | ATL8C3<br>0773:9<br>31..12<br>9 | 0.70 | 945875<br>13 | 43 | 1091 | 5.2e-<br>114 | (AC007<br>060)<br>Contai<br>ns<br>eukary<br>otic<br>protei<br>n<br>kinase<br>domain<br>PF1000<br>69.<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 162362 | ATU024<br>302 | ATL8C2<br>6665:1<br>..862  | gap2 | ATCEA4<br>S7102  | 82 |  | ATL8C2<br>6665:6<br>20..71<br>0 | 0.58 | 931933<br>04 | 43 | 465  | 2.7e-<br>28  | (AF069<br>298)<br>contai<br>ns<br>simila<br>rity<br>to RNA<br>recogn<br>ition<br>motifs<br>(Pfam:<br>rrm.hm<br>m,<br>score;<br>82.09<br>and<br>30.80)<br>; simila |

|        |               |                                  |      |                        |    |                                 |      |              |    |      |              |  |
|--------|---------------|----------------------------------|------|------------------------|----|---------------------------------|------|--------------|----|------|--------------|--|
| 162363 | ATU024<br>303 | ATL8C2<br>3009:9<br>35..16<br>4  | gap2 | ATCEA4<br>C57357<br>_1 | 82 | ATL8C2<br>3009:6<br>22..16<br>4 | 0.44 | g26606<br>73 | 43 | 510  | 1.1e-<br>45  | (AC002<br>342)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 162364 | ATU024<br>304 | ATL8C2<br>6112:3<br>18..12<br>04 | gap2 | ATCEA4<br>S17423       | 82 | ATL8C2<br>6112:4<br>18..98<br>4 | 0.99 | g18175<br>44 | 42 | 937  | 3.0e-<br>96  | (D8302<br>5)<br>proline<br>oxidase<br>precursor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162365 | ATU024<br>305 | ATL8C9<br>91:210<br>9..489       | gap2 | ATCEA4<br>C25140<br>_3 | 82 | ATL8C9<br>91:181<br>4..489      | 0.70 | g39134<br>25 | 42 | 1141 | 3.2e-<br>123 | PUTATI<br>VE<br>PRE-<br>MRNA<br>SPLICI<br>NG<br>FACTOR                               |

|        |               |                                   |      |                         |    |                                   |      |              |    |      |             |  |
|--------|---------------|-----------------------------------|------|-------------------------|----|-----------------------------------|------|--------------|----|------|-------------|--|
| 162366 | ATU024<br>306 | ATL8C4<br>6030:3<br>835..3<br>106 | gap2 | ATCEA4<br>C13636<br>9_1 | 82 | ATL8C4<br>6030:3<br>726..3<br>106 | 0.54 | g43760<br>88 | 42 | 715  | 1.1e-<br>60 | (Z9970<br>7)<br>cytoch<br>rome<br>P450-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 162367 | ATU024<br>307 | ATL8C1<br>8071:2<br>030..1        | gap2 | ATCEA4<br>C10115<br>6_1 | 82 | ATL8C1<br>8071:2<br>004..8<br>22  | 0.88 | g37765<br>57 | 40 | 657  | 1.2e-<br>56 | (AC005<br>388)<br>Contai<br>ns<br>simila<br>rity<br>to<br>[Arabi<br>dopsis<br>thalia<br>nal]         |
| 162368 | ATU024<br>308 | ATL8C4<br>5543:8<br>40..1         | gap2 | ATCEA4<br>C5439_1       | 82 | ATL8C4<br>5543:7<br>62..48        | 0.59 | g44067<br>80 | 40 | 1035 | 2.6e-<br>85 | (AC006<br>532)<br>putati<br>ve<br>multis<br>pannin<br>g  |

|        |               |                                 |      |                        |    |                                 |      |             |    |    |              |  |     |             |   |
|--------|---------------|---------------------------------|------|------------------------|----|---------------------------------|------|-------------|----|----|--------------|--|-----|-------------|---|
| 162369 | ATU024<br>309 | ATL8C4<br>4369:1<br>..391       | gap2 | ATCEA4<br>S33854       | 82 |                                 |      |             |    |    | g48039<br>33 | 40   | 353 | 5.0e-<br>20 | (AC006<br>264)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>respon<br>se<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162370 | ATU024<br>310 | ATL8C2<br>2610:6<br>02..21<br>6 | gap2 | ATCEA4<br>C60319<br>_1 | 82 |                                 |      |             |    |    | g48949<br>14 | 40   | 204 | 2.9e-<br>16 | (AF139<br>188)<br>HCF106<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162371 | ATU024<br>311 | ATL8C9<br>784:16<br>18..82<br>0 | gap2 | ATCEA4<br>C92759<br>_1 | 82 | ATL8C9<br>784:16<br>18..98<br>5 | 0.81 | g68494<br>2 | 39 | 93 | 0.0007<br>7  | (U2073<br>6) S-<br>adenos<br>yl-L-<br>methio<br>nine:t<br>rans-<br>caffe<br>yl-CoA |     |             |   |

|        |               |                                   |      |  |        |                            |      |              |    |     |             |  |   |
|--------|---------------|-----------------------------------|------|--|--------|----------------------------|------|--------------|----|-----|-------------|--|---|
| 162372 | ATU024<br>312 | ATL8S2<br>3861:1<br>..754         | gap2 | ATCEA4<br>C21366<br>1,<br>ATCEA4<br>S26348 | 82, 82 | ATL8S2<br>3861:5<br>1..737 | 0.68 | g39708<br>80 | 39 | 134 | 0.0003<br>6 | (AB015<br>724)<br>nuclea<br>r recept<br>or bindin<br>g factor<br>-1<br>[Rattus<br>norvegicus]                | 3-O-methyl<br>transferase<br>[Medicago<br>sativa<br>subsp.<br>sativa] |
| 162373 | ATU024<br>313 | ATL8C2<br>1691:2<br>735..3<br>550 | gap2 | ATCEA4<br>S27393                           | 82     |                            |      | g33778<br>30 | 39 | 745 | 2.5e-<br>59 | (AF075<br>598)<br>contains<br>similarity<br>to Aplysia<br>californica<br>intermediate<br>filament<br>protein |   |

|        |               |                                  |      |                  |    |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|----------------------------------|------|------------------|----|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 162374 | ATU024<br>314 | ATL8S2<br>195:47<br>0..1         | gap2 | ATCEA4<br>S32611 | 82 |  |  |  |  |  |  | g45862<br>65 | 39 | 296 | 1.0e-<br>30 | n A<br>(GB:X6<br>0297)<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162375 | ATU024<br>315 | ATL8C3<br>0096:3<br>64..96<br>3  | gap2 | ATCEA4<br>C423_1 | 82 |  |  |  |  |  |  | g39285<br>43 | 38 | 642 | 1.5e-<br>65 | (AL049<br>640)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 162376 | ATU024<br>316 | ATL8C2<br>5125:1<br>730..2<br>59 | gap2 | ATCEA4<br>S7724  | 82 |  |  |  |  |  |  | g44907<br>04 | 36 | 493 | 1.4e-<br>31 | (AB016<br>819)<br>UDP-<br>glucos<br>e<br>glucos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |      |                  |    |  |  |  |  |  |  |              |    |     |             | (AL035<br>680)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |





|        |               |                                  |      |                        |    |                            |      |              |    |     |             |  |
|--------|---------------|----------------------------------|------|------------------------|----|----------------------------|------|--------------|----|-----|-------------|--|
| 162381 | ATU024<br>321 | ATL8C9<br>625:66<br>2..1         | gap2 | ATCEA4<br>C49517<br>_1 | 82 | ATL8C9<br>625:57<br>8..106 | 0.77 | g46512<br>02 | 33 | 514 | 2.7e-<br>49 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AB026<br>253)<br>copper<br>amine<br>oxidas<br>e<br>[Pisum<br>sativu<br>m] |
| 162382 | ATU024<br>322 | ATL8S2<br>6567:1<br>..597        | gap2 | ATCEA4<br>C1828<br>_1  | 82 |                            |      | g40931<br>53 | 33 | 432 |             | (AF088<br>280)<br>phytoc<br>hrome-<br>associ<br>ated<br>protei<br>n 3<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 162383 | ATU024<br>323 | ATL8C4<br>604:34<br>3..1         | gap2 | ATCEA4<br>C24035<br>_2 | 82 |                            |      | g13524<br>60 | 33 | 174 | 5.7e-<br>18 | IN2-1<br>PROTEI<br>N<br>[Zea<br>mays]  |
| 162384 | ATU024<br>324 | ATL8C1<br>2697:1<br>070..1<br>52 | gap2 | ATCEA4<br>S2753        | 82 |                            |      | g45394<br>30 | 33 | 95  | 9.0e-<br>07 | (AL049<br>171),<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |

|        |               |                            |      |                        |    |   |                        |              |    |      |              |  |
|--------|---------------|----------------------------|------|------------------------|----|---|------------------------|--------------|----|------|--------------|--|
| 162385 | ATU024<br>325 | ATL8C2<br>4900:1<br>..676  | gap2 | ATCEA4<br>C8151_1      | 82 | ATL8C2<br>4900:2<br>90..56<br>3   | 0.86                   | g19316<br>40 | 32 | 451  | 1.1e-<br>49  | na]<br>(U9597<br>3)<br>Serine<br>carbox<br>ypepti<br>dase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162386 | ATU024<br>326 | ATL8C1<br>2576:1<br>..2647 | gap2 | ATCEA4<br>C24346<br>_1 | 82 | ATL8C1<br>2576:1<br>50..24<br>35  | 0.73                   | g22246<br>05 | 30 | 281  | 8.3e-<br>23  | (AB002<br>330)<br>KIAA03<br>32<br>[Homo<br>sapien<br>s]  |
| 162387 | ATU024<br>327 | ATL8C3<br>451:1.<br>..515  | gap2 | ATCEA4<br>S21603       | 82 | ATL8C3<br>451:29<br>8..390  | 0.58                   | g11685<br>30 | 30 | 278  | 4.1e-<br>16  | SERINE<br>/THREO<br>NINE-<br>PROTEI<br>N<br>KINASE<br>ASK2<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 162388 | ATU024<br>328 | ATL8C1<br>6698:1<br>..7162 | gap2 | ATCEA4<br>S4836        | 82 | ATL8C1<br>6698:1<br>05..24<br>25,<br>ATL8C1<br>6698:5<br>846..3<br>186,<br>ATL8C1<br>6698:6 | 0.56,<br>0.78,<br>0.90 | g42638<br>31 | 30 | 1353 | 1.2e-<br>128 | (AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi                         |



|        |               |                                   |      |                        |    |      |                                   |      |  |  |  |  |  |  |  |  |  |  |  |  |
|--------|---------------|-----------------------------------|------|------------------------|----|------|-----------------------------------|------|--|--|--|--|--|--|--|--|--|--|--|--|
| 162396 | ATU024<br>336 | ATL8C4<br>1475:7<br>83..43<br>9   | gap2 | ATCEA4<br>S4856        | 82 | 0    | ATL8C4<br>1475:7<br>83..67<br>5   | 0.98 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162397 | ATU024<br>337 | ATL8S2<br>9560:1<br>..417         | gap2 | ATCEA4<br>C47969<br>_1 | 82 | 0.98 | ATL8S2<br>9560:2<br>17..39<br>5   | 0.98 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162398 | ATU024<br>338 | ATL8C2<br>2122:8<br>11..31<br>5   | gap2 | ATCEA4<br>S7032        | 82 | 0.98 | ATL8C2<br>2122:8<br>11..31<br>5   | 0.98 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162399 | ATU024<br>339 | ATL8C2<br>6541:6<br>71..1         | gap2 | ATCEA4<br>S35788       | 82 | 0.97 | ATL8C2<br>6541:6<br>71..16<br>0   | 0.97 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162400 | ATU024<br>340 | ATL8C1<br>013:55<br>..2950        | gap2 | ATCEA4<br>S34167       | 82 | 0.96 | ATL8C1<br>013:55<br>..2950        | 0.96 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162401 | ATU024<br>341 | ATL8C2<br>8353:5<br>4..584        | gap2 | ATCEA4<br>S5873        | 82 | 0.96 | ATL8C2<br>8353:5<br>4..457        | 0.96 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162402 | ATU024<br>342 | ATL8C1<br>0295:3<br>382..2<br>862 | gap2 | ATCEA4<br>S253         | 82 | 0.96 | ATL8C1<br>0295:3<br>382..2<br>862 | 0.96 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162403 | ATU024<br>343 | ATL8C7<br>372:13<br>35..29        | gap2 | ATCEA4<br>C77905<br>1  | 82 | 0.93 | ATL8C7<br>372:12<br>16..29        | 0.93 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162404 | ATU024<br>344 | ATL8C1<br>9207:1<br>275..4<br>21  | gap2 | ATCEA4<br>S7558        | 82 | 0.93 | ATL8C1<br>9207:1<br>113..4<br>21  | 0.93 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162405 | ATU024<br>345 | ATL8C4<br>9657:1<br>02..21<br>38  | gap2 | ATCEA4<br>S716         | 82 | 0.93 | ATL8C4<br>9657:1<br>02..21<br>38  | 0.93 |  |  |  |  |  |  |  |  |  |  |  |  |
| 162406 | ATU024<br>346 | ATL8C1<br>5699:9                  | gap2 | ATCEA4<br>S2348        | 82 | 0.93 | ATL8C1<br>5699:9                  | 0.93 |  |  |  |  |  |  |  |  |  |  |  |  |

[illegible]

|        |               |                                  |      |   |                         |                                   |      |  |  |  |  |  |
|--------|---------------|----------------------------------|------|---|-------------------------|-----------------------------------|------|--|--|--|--|--|
| 162418 | ATU024<br>358 | ATL8S3<br>0038:6<br>1..596       | gap2 | ATCEA4<br>C17218<br>_2  | 82                      | ATL8S3<br>0038:2<br>32..31<br>5   | 0.86 |  |  |  |  |  |
| 162419 | ATU024<br>359 | ATL8C4<br>1942:1<br>60..87<br>5  | gap2 | ATCEA4<br>S29657  | 82                      | ATL8C4<br>1942:1<br>60..87<br>5   | 0.86 |  |  |  |  |  |
| 162420 | ATU024<br>360 | ATL8C1<br>9211:1<br>..797        | gap2 | ATCEA4<br>C373_1  | 82                      | ATL8C1<br>9211:1<br>21..76<br>6   | 0.85 |  |  |  |  |  |
| 162421 | ATU024<br>361 | ATL8C2<br>8217:8<br>76..31<br>2  | gap2 | ATCEA4<br>C61607<br>_1  | 82                      | ATL8C2<br>8217:8<br>18..31<br>2   | 0.85 |  |  |  |  |  |
| 162422 | ATU024<br>362 | ATL8C2<br>0661:7<br>1..214<br>0  | gap2 | ATCEA4<br>C10213<br>4_1   | 82                      | ATL8C2<br>0661:7<br>1..184<br>8   | 0.84 |  |  |  |  |  |
| 162423 | ATU024<br>363 | ATL8C1<br>277:50<br>6..781       | gap2 | ATCEA4<br>S26431  | 82                      | ATL8C1<br>277:60<br>4..770        | 0.82 |  |  |  |  |  |
| 162424 | ATU024<br>364 | ATL8C9<br>975:1.<br>.379         | gap2 | ATCEA4<br>C55467<br>1,<br>ATCEA4<br>C53931<br>1,<br>ATCEA4<br>S8141 | 82,<br>82,<br>82,<br>82 | ATL8C9<br>975:10<br>7..379        | 0.82 |  |  |  |  |  |
| 162425 | ATU024<br>365 | ATL8C8<br>463:72<br>0..14        | gap2 | ATCEA4<br>S16658  | 82                      | ATL8C8<br>463:72<br>0..14         | 0.82 |  |  |  |  |  |
| 162426 | ATU024<br>366 | ATL8C2<br>2656:1<br>289..5<br>29 | gap2 | ATCEA4<br>C9181_1   | 82                      | ATL8C2<br>2656:1<br>194..1<br>109 | 0.79 |  |  |  |  |  |
| 162427 | ATU024<br>367 | ATL8C3<br>3204:7                 | gap2 | ATCEA4<br>C598_4  | 82, 82                  | ATL8C3<br>3204:7                  | 0.78 |  |  |  |  |  |

|        |               | 1..112<br>2                       |      | ' ATCEA4<br>C598 2     |    | 1..106<br>9                       |      |  |  |  |  |  |  |
|--------|---------------|-----------------------------------|------|------------------------|----|-----------------------------------|------|--|--|--|--|--|--|
| 162428 | ATU024<br>368 | ATL8C3<br>2133:2<br>723..1<br>813 | gap2 | ATCEA4<br>C23116<br>_1 | 82 | ATL8C3<br>2133:2<br>723..2<br>467 | 0.78 |  |  |  |  |  |  |
| 162429 | ATU024<br>369 | ATL8C1<br>221:25<br>05..22<br>06  | gap2 | ATCEA4<br>S11817       | 82 | ATL8C1<br>221:23<br>51..22<br>06  | 0.78 |  |  |  |  |  |  |
| 162430 | ATU024<br>370 | ATL8C1<br>381:14<br>92..45        | gap2 | ATCEA4<br>S32628       | 82 | ATL8C1<br>381:14<br>92..30<br>9   | 0.74 |  |  |  |  |  |  |
| 162431 | ATU024<br>371 | ATL8C1<br>7942:4<br>57..1         | gap2 | ATCEA4<br>C73258<br>1  | 82 | ATL8C1<br>7942:4<br>15..8         | 0.73 |  |  |  |  |  |  |
| 162432 | ATU024<br>372 | ATL8C4<br>6824:2<br>674..1<br>162 | gap2 | ATCEA4<br>S32628       | 82 | ATL8C4<br>6824:2<br>674..1<br>162 | 0.73 |  |  |  |  |  |  |
| 162433 | ATU024<br>373 | ATL8C3<br>4253:3<br>856..7<br>48  | gap2 | ATCEA4<br>S32106       | 82 | ATL8C3<br>4253:3<br>584..7<br>48  | 0.71 |  |  |  |  |  |  |
| 162434 | ATU024<br>374 | ATL8C8<br>805:45<br>9..200<br>1   | gap2 | ATCEA4<br>S36          | 82 | ATL8C8<br>805:45<br>9..200<br>1   | 0.70 |  |  |  |  |  |  |
| 162435 | ATU024<br>375 | ATL8C3<br>9887:7<br>61..21<br>8   | gap2 | ATCEA4<br>S13576       | 82 | ATL8C3<br>9887:7<br>17..21<br>8   | 0.70 |  |  |  |  |  |  |
| 162436 | ATU024<br>376 | ATL8C3<br>8349:6<br>86..18<br>0   | gap2 | ATCEA4<br>S10724       | 82 | ATL8C3<br>8349:6<br>08..18<br>0   | 0.70 |  |  |  |  |  |  |
| 162437 | ATU024<br>377 | ATL8C1<br>8304:1                  | gap2 | ATCEA4<br>C43837       | 82 | ATL8C1<br>8304:1                  | 0.69 |  |  |  |  |  |  |

|        |               | 65..1                             | gap2 | 1                      |    | 60..59                            |      |  |  |  |  |  |
|--------|---------------|-----------------------------------|------|------------------------|----|-----------------------------------|------|--|--|--|--|--|
| 162438 | ATU024<br>378 | ATL8C1<br>5904:3<br>33..11<br>18  | gap2 | ATCEA4<br>S34649       | 82 | ATL8C1<br>5904:3<br>33..11<br>18  | 0.69 |  |  |  |  |  |
| 162439 | ATU024<br>379 | ATL8C4<br>3354:4<br>32..13<br>29  | gap2 | ATCEA4<br>C30135<br>_1 | 82 | ATL8C4<br>3354:8<br>65..13<br>29  | 0.68 |  |  |  |  |  |
| 162440 | ATU024<br>380 | ATL8C4<br>3589:5<br>69..79<br>1   | gap2 | ATCEA4<br>C24778<br>_2 | 82 | ATL8C4<br>3589:5<br>69..72<br>0   | 0.68 |  |  |  |  |  |
| 162441 | ATU024<br>381 | ATL8C2<br>4387:1<br>938..1<br>335 | gap2 | ATCEA4<br>S7033        | 82 | ATL8C2<br>4387:1<br>817..1<br>335 | 0.68 |  |  |  |  |  |
| 162442 | ATU024<br>382 | ATL8C6<br>150:43<br>13..30<br>54  | gap2 | ATCEA4<br>S11406       | 82 | ATL8C6<br>150:43<br>13..30<br>54  | 0.67 |  |  |  |  |  |
| 162443 | ATU024<br>383 | ATL8C4<br>747:28<br>6..661        | gap2 | ATCEA4<br>S30739       | 82 | ATL8C4<br>747:29<br>7..661        | 0.66 |  |  |  |  |  |
| 162444 | ATU024<br>384 | ATL8C2<br>1246:7<br>2..678        | gap2 | ATCEA4<br>C36760<br>1  | 82 | ATL8C2<br>1246:7<br>2..172        | 0.66 |  |  |  |  |  |
| 162445 | ATU024<br>385 | ATL8C2<br>8366:2<br>98..50<br>0   | gap2 | ATCEA4<br>S31942       | 82 | ATL8C2<br>8366:3<br>37..47<br>0   | 0.66 |  |  |  |  |  |
| 162446 | ATU024<br>386 | ATL8C4<br>5243:1<br>22..88<br>8   | gap2 | ATCEA4<br>S25048       | 82 | ATL8C4<br>5243:1<br>22..63<br>9   | 0.63 |  |  |  |  |  |
| 162447 | ATU024<br>387 | ATL8C4<br>6810:5<br>80..86<br>6   | gap2 | ATCEA4<br>C2387<br>1   | 82 | ATL8C4<br>6810:5<br>80..86<br>6   | 0.62 |  |  |  |  |  |
| 162448 | ATU024        | ATL8C3                            | gap2 | ATCEA4                 | 82 | ATL8C3                            | 0.61 |  |  |  |  |  |









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| 162492 | ATU024<br>432 | ATL8C4<br>1758:1<br>980..1<br>617 | gap2 | ATCEA4<br>S126         | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162493 | ATU024<br>433 | ATL8C3<br>4115:2<br>26..44<br>9   | gap2 | ATCEA4<br>S28507       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162494 | ATU024<br>434 | ATL8C2<br>0650:1<br>192..7<br>81  | gap2 | ATCEA4<br>C11258<br>_1 | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162495 | ATU024<br>435 | ATL8S3<br>0009:4<br>85..90        | gap2 | ATCEA4<br>S29911       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162496 | ATU024<br>436 | ATL8C3<br>4235:1<br>10..54<br>0   | gap2 | ATCEA4<br>S29864       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162497 | ATU024<br>437 | ATL8C4<br>1518:2<br>01..39<br>4   | gap2 | ATCEA4<br>S10621       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162498 | ATU024<br>438 | ATL8C2<br>1865:1<br>29..25<br>6   | gap2 | ATCEA4<br>S30727       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162499 | ATU024<br>439 | ATL8C4<br>6538:5<br>92..10<br>26  | gap2 | ATCEA4<br>C8526_<br>1  | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162500 | ATU024<br>440 | ATL8C3<br>90:515<br>..1           | gap2 | ATCEA4<br>C9880_<br>1  | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162501 | ATU024<br>441 | ATL8C3<br>7808:8<br>82..60<br>9   | gap2 | ATCEA4<br>C13665<br>_1 | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162502 | ATU024<br>442 | ATL8C1<br>7106:1                  | gap2 | ATCEA4<br>S26576       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |





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| 162525 | ATU024<br>465 | ATL8S4<br>064:1.159               | gap2 | ATCEA4<br>S30263      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162526 | ATU024<br>466 | ATL8C4<br>751:84<br>4..432        | gap2 | ATCEA4<br>S23238      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162527 | ATU024<br>467 | ATL8S1<br>1645:1<br>71..1         | gap2 | ATCEA4<br>C48854<br>1 | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162528 | ATU024<br>468 | ATL8C3<br>3979:3<br>76..1         | gap2 | ATCEA4<br>C20594<br>1 | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162529 | ATU024<br>469 | ATL8C2<br>9959:2<br>29..1         | gap2 | ATCEA4<br>S195        | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162530 | ATU024<br>470 | ATL8C1<br>833:53<br>4..886        | gap2 | ATCEA4<br>S11248      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162531 | ATU024<br>471 | ATL8S4<br>248:40<br>7..276        | gap2 | ATCEA4<br>S14662      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162532 | ATU024<br>472 | ATL8S4<br>277:28<br>9..1          | gap2 | ATCEA4<br>S8243       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162533 | ATU024<br>473 | ATL8C4<br>2522:3<br>09..74<br>4   | gap2 | ATCEA4<br>S13006      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162534 | ATU024<br>474 | ATL8C3<br>5364:4<br>979..5<br>142 | gap2 | ATCEA4<br>S17981      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162535 | ATU024<br>475 | ATL8C3<br>2346:1<br>221..1<br>157 | gap2 | ATCEA4<br>C691_1      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162536 | ATU024<br>476 | ATL8C2<br>0746:7<br>294..6<br>938 | gap2 | ATCEA4<br>S11406      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |







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| 162624 | ATU024<br>564 | ATL8C4<br>8989:1<br>169..9<br>74  | gap2 | ATCEA4<br>S32189      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162625 | ATU024<br>565 | ATL8C4<br>905:13<br>97..16<br>21  | gap2 | ATCEA4<br>S11817      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162626 | ATU024<br>566 | ATL8C4<br>908:52<br>3..423        | gap2 | ATCEA4<br>C78762<br>1 | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162627 | ATU024<br>567 | ATL8C4<br>5101:3<br>63..57<br>8   | gap2 | ATCEA4<br>S11628      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162628 | ATU024<br>568 | ATL8C4<br>9317:1<br>949..1<br>679 | gap2 | ATCEA4<br>S4478       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162629 | ATU024<br>569 | ATL8C2<br>8649:4<br>50..1         | gap2 | ATCEA4<br>S1594       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162630 | ATU024<br>570 | ATL8C2<br>2408:3<br>240..3<br>104 | gap2 | ATCEA4<br>S30567      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162631 | ATU024<br>571 | ATL8C4<br>5118:9<br>29..78<br>2   | gap2 | ATCEA4<br>S29643      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162632 | ATU024<br>572 | ATL8C4<br>9386:9<br>07..13<br>62  | gap2 | ATCEA4<br>S18398      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162633 | ATU024<br>573 | ATL8C1<br>591:15<br>19..11<br>50  | gap2 | ATCEA4<br>S12319      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162634 | ATU024<br>574 | ATL8C4<br>9474:7                  | gap2 | ATCEA4<br>S17624      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

















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| 162713 | ATU024<br>653 | ATL8C1<br>9385:7<br>39..57<br>7  | gap2 | ATCEA4<br>S4360       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162714 | ATU024<br>654 | ATL8S2<br>357:14<br>4..1         | gap2 | ATCEA4<br>C29075<br>2 | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162715 | ATU024<br>655 | ATL8C1<br>9400:2<br>61..64<br>6  | gap2 | ATCEA4<br>S12925      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162716 | ATU024<br>656 | ATL8C4<br>1002:5<br>53..25<br>4  | gap2 | ATCEA4<br>S11406      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162717 | ATU024<br>657 | ATL8S2<br>2465:4<br>59..22<br>1  | gap2 | ATCEA4<br>S1933       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162718 | ATU024<br>658 | ATL8S1<br>3811:1<br>..543        | gap2 | ATCEA4<br>C233_2      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162719 | ATU024<br>659 | ATL8C1<br>363:28<br>27..24<br>52 | gap2 | ATCEA4<br>S12319      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162720 | ATU024<br>660 | ATL8S1<br>411:5<br>00..23<br>9   | gap2 | ATCEA4<br>S4478       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162721 | ATU024<br>661 | ATL8S1<br>415:82<br>..1          | gap2 | ATCEA4<br>S17496      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162722 | ATU024<br>662 | ATL8S1<br>4252:5<br>04..36<br>9  | gap2 | ATCEA4<br>S14662      | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 162723 | ATU024<br>663 | ATL8S1<br>4352:1<br>..251        | gap2 | ATCEA4<br>S8243       | 82 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |







|        |               |                                  |     |  |  |  |  |                                  |      |              |     |     |             |   |
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| 162753 | ATU024<br>693 | ATL8C7<br>771:21<br>52..13<br>05 | nap |  |  |  |  | ATL8C7<br>771:21<br>52..13<br>70 | 1.00 | g48862<br>86 | 100 | 821 | 7.4e-<br>63 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162754 | ATU024<br>694 | ATL8C3<br>5131:9<br>95..85       | nap |  |  |  |  | ATL8C3<br>5131:9<br>95..49<br>9  | 0.99 | g35488<br>01 | 100 | 461 | 2.1e-<br>40 | (AC005<br>313)<br>putati<br>ve<br>transm<br>embran<br>e<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 162755 | ATU024<br>695 | ATL8C5<br>353:17<br>51..30<br>00 | nap |  |  |  |  | ATL8C5<br>353:17<br>51..26<br>99 | 0.99 | g32016<br>32 | 100 | 846 | 2.8e-<br>91 | (AC004<br>669)<br>putati<br>ve 2A6<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |
| 162756 | ATU024<br>696 | ATL8C9<br>788:22<br>8..115       | nap |  |  |  |  | ATL8C9<br>788:22<br>8..115       | 0.99 | g25831<br>18 | 100 | 449 | 5.7e-<br>45 | (AC002<br>387)<br>hypoth  |

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| 162757 | ATU024<br>697 | 4 | nap |  |  |  |  | 4 | ATL8C1<br>0848:1<br>01..79<br>1  | 0.99 | g39414<br>46 | 100 | 1015 | 7.0e-<br>75 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF062<br>877)<br>putati<br>ve<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162758 | ATU024<br>698 | 4 | nap |  |  |  |  |   | ATL8C5<br>865:14<br>87..39<br>56 | 0.99 | g42622<br>10 | 100 | 1769 |             | (AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 162759 | ATU024<br>699 |   | nap |  |  |  |  |   | ATL8C1<br>0750:6<br>16..20<br>76 | 0.99 | g39414<br>66 | 100 | 769  | 1.6e-<br>61 | (AF062<br>887)<br>putati<br>ve<br>transc<br>riptio   |

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| 162760 | ATU024<br>700 | ATL8C1<br>9854:2<br>261..4<br>43 | nap |  |  |  |  | ATL8C1<br>9854:2<br>162..4<br>91 | 0.99 | g45672<br>96 | 100 | 2401 | 3.3e-<br>224 | n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>918)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 162761 | ATU024<br>701 | ATL8C8<br>434:32<br>13..22<br>01 | nap |  |  |  |  | ATL8C8<br>434:32<br>13..22<br>01 | 0.98 | g43357<br>45 | 100 | 919  | 1.8e-<br>91  | (AC006<br>284)<br>putati<br>ve<br>hydrol<br>ase<br>(conta<br>ins an<br>estera<br>se/lip<br>ase/th<br>ioeste<br>rase<br>active<br>site<br>serine<br>domain<br>(prosi<br>te:<br>PS5018 |

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| 162762 | ATU024<br>702 | ATL8C3<br>1052:3<br>72..14<br>77  | nap |  |  |  |  |  | ATL8C3<br>1052:3<br>72..13<br>06  | 0.98 | g48039<br>41 | 100 | 612  | 1.1e-<br>57  | 7)<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>264)<br>putati<br>ve<br>major<br>intrin<br>sic<br>protei<br>n<br>(nodul<br>in-26<br>protei<br>n)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162763 | ATU024<br>703 | ATL8C1<br>0776:3<br>045..1<br>886 | nap |  |  |  |  |  | ATL8C1<br>0776:3<br>032..1<br>901 | 0.98 | g11139<br>41 | 100 | 944  | 1.4e-<br>91  | (U4071<br>3)<br>Pv42p<br>[Phase,<br>olus<br>vulgar<br>is]  |
| 162764 | ATU024<br>704 | ATL8C3<br>2064:1<br>056..1<br>15  | nap |  |  |  |  |  | ATL8C3<br>2064:1<br>056..1<br>15  | 0.98 | g45824<br>64 | 100 | 1497 | 5.7e-<br>146 | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162765 | ATU024        | ATL8C5                            | nap |  |  |  |  |  | ATL8C5                            | 0.98 | g19316       | 100 | 940  | 5.5e-        | (U9597   |



|        |               |                                   |     |  |  |  |                                   |      |              |     |      |              |  |
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| 162766 | 705           | 492:47<br>47..14<br>23            |     |  |  |  | 492:47<br>47..21<br>46            | 0.98 | g45809<br>90 | 100 | 1241 | 7.3e-<br>126 | 3)<br>recept<br>or-<br>kinase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]           |
|        | ATU024<br>706 | ATL8C3<br>0643:5<br>786..3<br>884 | nap |  |  |  | ATL8C3<br>0643:5<br>702..3<br>884 |      |              |     |      |              | (AF120<br>335)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162767 | 707           | ATL8C1<br>5315:1<br>044..1<br>682 | nap |  |  |  | ATL8C1<br>5315:1<br>306..1<br>501 | 0.98 | g40380<br>66 | 100 | 720  | 1.1e-<br>53  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162768 | 708           | ATL8C1<br>3914:1<br>797..8<br>62  | nap |  |  |  | ATL8C1<br>3914:1<br>797..8<br>62  | 0.98 | g25831<br>18 | 100 | 719  | 3.0e-<br>70  | (AC002<br>387)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162769 | ATU024        | ATL8C1                            | nap |  |  |  | ATL8C1                            | 0.97 | g40380       | 100 | 101  | 0.011        | (AC005   |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
|        | 709           | 7793:3<br>11..10<br>81            |     |  |  |  |  | 7793:3<br>60..72<br>5             | 66   |              |     |      |              | 897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 162770 | ATU024<br>710 | ATL8C4<br>6980:8<br>533..7<br>517 | nap |  |  |  |  | ATL8C4<br>6980:8<br>533..7<br>517 | 0.97 | g47739<br>11 | 100 | 1160 | 6.3e-<br>114 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 162771 | ATU024<br>711 | ATL8C4<br>4410:1<br>473..7        | nap |  |  |  |  | ATL8C4<br>4410:1<br>473..7        | 0.97 | g45860<br>70 | 100 | 1113 | 2.7e-<br>75  | (AC006<br>194)<br>putati<br>ve<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162772 | ATU024<br>712 | ATL8C1<br>0479:9<br>87..16<br>04  | nap |  |  |  |  | ATL8C1<br>0479:1<br>549..1<br>033 | 0.97 | g45444<br>33 | 100 | 151  |              | (AC006<br>955)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis                                  |

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| 162773 | ATU024<br>713 | ATL8C7<br>735:51<br>3..112<br>8   | nap |  |  |  | ATL8C7<br>735:56<br>7..112<br>8   | 0.97 | g39414<br>60 | 100 | 997  | 1.4e-<br>87  | thalia<br>nal<br>(AF062<br>884)<br>putati<br>ve<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 162774 | ATU024<br>714 | ATL8C1<br>2065:9<br>454..6<br>830 | nap |  |  |  | ATL8C1<br>2065:9<br>454..6<br>830 | 0.97 | g15132<br>28 | 100 | 2161 | 1.3e-<br>214 | (U6630<br>7)<br>myo-<br>inosit<br>ol 1-<br>phosph<br>ate<br>syntha<br>se<br>[Brass<br>ica<br>napus]                      |
| 162775 | ATU024<br>715 | ATL8C4<br>9639:2<br>374..1<br>080 | nap |  |  |  | ATL8C4<br>9639:1<br>882..1<br>080 | 0.97 | g32693<br>01 | 100 | 868  | 2.0e-<br>93  | (AL030<br>978)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                      |
| 162776 | ATU024<br>716 | ATL8C2<br>7009:2<br>226..1<br>231 | nap |  |  |  | ATL8C2<br>7009:2<br>226..1<br>231 | 0.97 | g41543<br>52 | 100 | 325  | 8.2e-<br>36  | (AF110<br>333)<br>PrMC3<br>[Pinus]   |

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| 162777 | ATU024<br>717 | ATL8C3<br>1872:3<br>731..1<br>083 | nap |  |  |  |  | ATL8C3<br>1872:3<br>513..1<br>697 | 0.97 | g23427<br>33 | 100 | 1176 | 7.6e-<br>115 | radiat<br>aj<br>(AC002<br>341)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162778 | ATU024<br>718 | ATL8C2<br>4079:4<br>51..16<br>97  | nap |  |  |  |  | ATL8C2<br>4079:4<br>51..16<br>97  | 0.97 | g34510<br>78 | 100 | 992  | 1.4e-<br>80  | (AL031<br>326)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 162779 | ATU024<br>719 | ATL8C3<br>7505:1<br>48..20<br>55  | nap |  |  |  |  | ATL8C3<br>7505:1<br>48..20<br>55  | 0.97 | g45389<br>64 | 100 | 514  |              | (AL049<br>488)<br>NAM/NA<br>P like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 162780 | ATU024<br>720 | ATL8C4<br>7481:1<br>72..31<br>32  | nap |  |  |  |  | ATL8C4<br>7481:1<br>554..3<br>132 | 0.97 | g11689<br>40 | 100 | 522  | 2.3e-<br>33  | CHORIS<br>MATE<br>MUTASE<br>PRECUR<br>SOR<br>(CM-1)<br>[Arabi<br>dopsis                                |

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| 162781 | ATU024<br>721 | ATL8C4<br>7439:4<br>300..6<br>881 | nap |  |  |  |  | ATL8C4<br>7439:4<br>300..6<br>881 | 0.96 | g42622<br>13 | 100 | 925  | 6.7e-<br>88  | thalia<br>nal<br>(AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 162782 | ATU024<br>722 | ATL8C3<br>5731:2<br>075..4<br>367 | nap |  |  |  |  | ATL8C3<br>5731:2<br>223..4<br>367 | 0.96 | g11935<br>1  | 100 | 1292 | 3.0e-<br>136 | ENOLAS<br>E (2-<br>PHOSPH<br>OGLYCE<br>RATE<br>DEHYDR<br>ATASE)<br>(2-<br>PHOSPH<br>O-D-<br>GLYCER<br>ATE<br>HYDRO-<br>LYASE)<br>[Droso<br>phila<br>melano<br>gaster<br>J] |
| 162783 | ATU024<br>723 | ATL8C2<br>5006:1<br>794..1<br>53  | nap |  |  |  |  | ATL8C2<br>5006:1<br>794..5<br>32  | 0.96 | g41917<br>95 | 100 | 673  | 1.9e-<br>71  | (AC005<br>917)<br>putati<br>ve<br>zinc<br>finger<br>-like<br>protei<br>n   |

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| 162784 | ATU024<br>724 | ATL8C3<br>6236:3<br>58..15<br>71 | nap |  |  |  |  |  |  | ATL8C3<br>6236:7<br>29..15<br>71  | 0.96 |  | g49144<br>01                  | 100        | 894         | 3.5e-<br>88                 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL050<br>352)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 162785 | ATU024<br>725 | ATL8C2<br>5843:1<br>868..4<br>8  | nap |  |  |  |  |  |  | ATL8C2<br>5843:1<br>868..4<br>8   | 0.96 |  | g43888<br>26                  | 100        | 942         | 1.2e-<br>94                 | (AC006<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162786 | ATU024<br>726 | ATL8C1<br>7705:1<br>..3167<br>8  | nap |  |  |  |  |  |  | ATL8C1<br>7705:1<br>929..3<br>088 | 0.96 |  | g45860<br>69,<br>g10916<br>78 | 100,<br>46 | 541,<br>205 | 1.7e-<br>55,<br>2.3e-<br>24 | (AC006<br>194)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>activa<br>tor-<br>like<br>transp<br>osable<br>elemen |

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| 162787 | ATU024<br>727 | ATL8C4<br>8697:2<br>289..5<br>87 | nap |  |  |  |  | ATL8C4<br>8697:2<br>223..5<br>87 | 0.96 | g31691<br>78 | 100 | 1990 | 1.6e-<br>194 | (AC004<br>401)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162788 | ATU024<br>728 | ATL8C4<br>0955:1<br>224..6<br>9  | nap |  |  |  |  | ATL8C4<br>0955:1<br>224..3<br>05 | 0.95 | g19463<br>60 | 100 | 454  | 1.8e-<br>40  | (U9321<br>5)<br>elicit<br>or<br>respon<br>se<br>elemen<br>t<br>bindin<br>g<br>protein<br>WRKY3<br>isolat<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162789 | ATU024<br>729 | ATL8C4<br>2074:4<br>50..16<br>81 | nap |  |  |  |  | ATL8C4<br>2074:4<br>50..15<br>40 | 0.95 | g40380<br>66 | 100 | 501  | 7.5e-<br>27  | (AC005<br>897)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |

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| 162790 | ATU024<br>730 | ATL8C3<br>4164:1<br>12..14<br>08  | nap |  |  |  |  |  | ATL8C3<br>4164:2<br>41..14<br>08  | 0.95 | g33675<br>27 | 100 | 1571 | 5.9e-<br>157 | dopsis<br>thalia<br>na]<br>(AC004<br>392)<br>Strong<br>simila<br>rity<br>to<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162791 | ATU024<br>731 | ATL8C2<br>0716:2<br>651..3<br>62  | nap |  |  |  |  |  | ATL8C2<br>0716:2<br>651..4<br>29  | 0.95 | g21606<br>94 | 100 | 1668 | 4.7e-<br>167 | (U7352<br>8) B'<br>regula<br>tory<br>subuni<br>t of<br>PP2A<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 162792 | ATU024<br>732 | ATL8C1<br>2741:1<br>50..13<br>21  | nap |  |  |  |  |  | ATL8C1<br>2741:1<br>50..13<br>21  | 0.95 | g48862<br>80 | 100 | 527  | 5.6e-<br>45  | (AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 162793 | ATU024<br>733 | ATL8C3<br>4375:9<br>054..5<br>519 | nap |  |  |  |  |  | ATL8C3<br>4375:9<br>054..5<br>519 | 0.94 | g13816<br>76 | 100 | 686  | 2.8e-<br>67  | (U5885<br>3)<br>small<br>GTP-<br>bindin<br>g   |



|        |               |                                   |     |  |  |  |  |  |                                   |      |  |              |     |      |              |   |
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| 162794 | ATU024<br>734 | ATL8C4<br>50:453<br>6..609<br>0   | nap |  |  |  |  |  | ATL8C4<br>50:454<br>2..609<br>0   | 0.94 |  | g45394<br>50 | 100 | 851  | 3.9e-<br>86  | protein<br>[Glyci<br>ne<br>max]<br>(AL049<br>500)<br>putati<br>ve<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162795 | ATU024<br>735 | ATL8C2<br>6395:6<br>8..107<br>0   | nap |  |  |  |  |  | ATL8C2<br>6395:8<br>0..104<br>2   | 0.94 |  | g42638<br>18 | 100 | 490  | 1.5e-<br>51  | (AC006<br>067)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162796 | ATU024<br>736 | ATL8C3<br>7492:1<br>122..1<br>877 | nap |  |  |  |  |  | ATL8C3<br>7492:1<br>128..1<br>877 | 0.94 |  | g22448<br>19 | 100 | 759  |              | (Z9733<br>6)<br>germin<br>type 2<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162797 | ATU024<br>737 | ATL8C2<br>0726:3<br>163..1<br>1   | nap |  |  |  |  |  | ATL8C2<br>0726:2<br>501..1<br>1   | 0.94 |  | g22528<br>31 | 100 | 1502 | 9.9e-<br>150 | (AF013<br>293)<br>No<br>defini<br>tion<br>line<br>found   |

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| 162798 | ATU024<br>738 | ATL8C3<br>5849:2<br>749..1<br>108 | nap |  |  |  |  | ATL8C3<br>5849:1<br>752..1<br>108                                      | 0.94          | g30803<br>58                  | 100        | 823          | 6.8e-<br>87 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162799 | ATU024<br>739 | ATL8C1<br>0297:9<br>27..54<br>88  | nap |  |  |  |  | ATL8C1<br>0297:1<br>510..9<br>97,<br>ATL8C1<br>0297:2<br>100..5<br>488 | 0.94,<br>0.82 | g47739<br>11,<br>g38057<br>59 | 100,<br>99 | 1125,<br>116 |             | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162800 | ATU024<br>740 | ATL8C4<br>3426:2<br>027..8<br>42  | nap |  |  |  |  | ATL8C4<br>3426:1<br>746..8<br>42                                       | 0.93          | g49144<br>59                  | 100        | 613          |             | (AL050<br>400)<br>hypoth<br>etical<br>protei<br>n   |

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| 162801 | ATU024<br>741 | ATL8C2<br>4856:7<br>7..335<br>8  | nap |  |  |  |  | ATL8C2<br>4856:7<br>7..317<br>9  | 0.93 | g40380<br>66 | 100 | 790 | 3.5e-<br>50 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162802 | ATU024<br>742 | ATL8C7<br>931:27<br>69..11<br>05 | nap |  |  |  |  | ATL8C7<br>931:27<br>69..11<br>05 | 0.93 | g27656<br>67 | 100 | 962 | 8.8e-<br>86 | (Z8331<br>2)<br>3'(2')<br>,5'-<br>bispho<br>sphate<br>nucleo<br>tidase<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 162803 | ATU024<br>743 | ATL8C4<br>5821:2<br>077..7<br>53 | nap |  |  |  |  | ATL8C4<br>5821:1<br>902..7<br>97 | 0.93 | g49143<br>58 | 100 | 509 | 1.1e-<br>55 | (AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 162804 | ATU024<br>744 | ATL8C2<br>2908:2<br>079..2       | nap |  |  |  |  | ATL8C2<br>2908:1<br>842..3       | 0.93 | g46783<br>47 | 100 | 556 | 3.3e-<br>51 | (AL049<br>659)<br>putati  |

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| 162805 | ATU024<br>745 | 72                                | nap |  |  |  |  | 06                                | 0.93 | g40380<br>66 | 100 | 692 | 2.2e-<br>48 | (AC005<br>897)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               | ATL8C4<br>2975:2<br>420..1<br>693 |     |  |  |  |  | ATL8C4<br>2975:2<br>151..1<br>872 |      |              |     |     |             |  |
| 162806 | ATU024<br>746 | ATL8C2<br>2998:1<br>827..1<br>111 | nap |  |  |  |  | ATL8C2<br>2998:1<br>778..1<br>128 | 0.93 | g48862<br>86 | 100 | 679 | 2.2e-<br>50 | (AL050<br>300)<br>putati<br>ve<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 162807 | ATU024<br>747 | ATL8C1<br>431:34<br>4..130<br>6   | nap |  |  |  |  | ATL8C1<br>431:40<br>9..872        | 0.93 | g40068<br>21 | 100 | 470 | 3.6e-<br>52 | (AC005<br>970)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162808 | ATU024<br>748 | ATL8C2<br>5182:1<br>018..1        | nap |  |  |  |  | ATL8C2<br>5182:1<br>022..1        | 0.93 | g13510<br>14 | 100 | 857 | 2.7e-<br>85 | 40S<br>RIBOSO<br>MAL   |

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| 162809 | ATU024<br>749 | 929                               | nap |  |  |  | 756                               | 0.93 | 936872<br>46 | 100 | 1306 | 1.1e-<br>115 | PROTEI<br>N S8<br>[Oryza<br>sativa<br>]  |
|        |               | ATL8C3<br>5029:1<br>054..4<br>229 |     |  |  |  | ATL8C3<br>5029:1<br>054..4<br>182 |      |              |     |      |              | (AC005<br>169)<br>putati<br>ve<br>suppre<br>ssor<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162810 | ATU024<br>750 | ATL8C2<br>0052:2<br>4..103<br>7   | nap |  |  |  | ATL8C2<br>0052:1<br>21..10<br>37  | 0.93 | 944681<br>13 | 100 | 293  |              | (Y1836<br>7) 3-<br>alpha-<br>hydrox<br>yestero<br>id<br>dehydr<br>ogenas<br>e-like<br>protei<br>n<br>[Branc<br>hiosto<br>ma<br>florid<br>ae] |
| 162811 | ATU024<br>751 | ATL8C1<br>3107:1<br>861..5<br>218 | nap |  |  |  | ATL8C1<br>3107:1<br>861..5<br>218 | 0.93 | 944907<br>02 | 100 | 2204 | 3.4e-<br>216 | (AL035<br>680)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi  |

|        |               |                                  |     |  |  |  |  |  |                                   |      |              |     |      |             |  |
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| 162812 | ATU024<br>752 | ATL8C2<br>3344:2<br>221..8<br>46 | nap |  |  |  |  |  | ATL8C2<br>3344:2<br>221..8<br>46  | 0.93 | g42630<br>50 | 100 | 446  | 5.0e-<br>45 | (AC005<br>142)<br>putati<br>ve<br>noduli<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 162813 | ATU024<br>753 | ATL8C3<br>4943:4<br>4..123<br>5  | nap |  |  |  |  |  | ATL8C3<br>4943:4<br>4..123<br>5   | 0.93 | g32528<br>10 | 100 | 900  | 7.2e-<br>79 | (AC004<br>705)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162814 | ATU024<br>754 | ATL8C2<br>5808:3<br>93..23<br>20 | nap |  |  |  |  |  | ATL8C2<br>5808:3<br>93..22<br>21  | 0.93 | g45196<br>73 | 100 | 1134 | 1.3e-<br>91 | (AB017<br>694)<br>WREBP-<br>2<br>[Nicot<br>iana<br>tabacu<br>m]                        |
| 162815 | ATU024<br>755 | ATL8C1<br>4472:6<br>45..45<br>03 | nap |  |  |  |  |  | ATL8C1<br>4472:3<br>042..4<br>503 | 0.92 | g34137<br>10 | 100 | 926  | 7.0e-<br>98 | (AC004<br>747)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|---|
| 162816 | ATU024<br>756 | ATL8C1<br>0176:5<br>480..4<br>471 | nap |  |  |  | ATL8C1<br>0176:5<br>480..4<br>471 | 0.92 | g43097<br>03 | 100 | 1149 |              | na]<br>(AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 162817 | ATU024<br>757 | ATL8C2<br>9972:1<br>088..2<br>021 | nap |  |  |  | ATL8C2<br>9972:1<br>088..2<br>021 | 0.92 | g45585<br>67 | 100 | 879  | 4.8e-<br>88  | (AC007<br>138)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162818 | ATU024<br>758 | ATL8C9<br>369:82<br>5..330<br>2   | nap |  |  |  | ATL8C9<br>369:82<br>5..330<br>2   | 0.92 | g42622<br>10 | 100 | 1852 | 3.6e-<br>176 | (AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162819 | ATU024<br>759 | ATL8C4<br>4075:3                  | nap |  |  |  | ATL8C4<br>4075:3                  | 0.92 | g11105<br>02 | 100 | 519  | 1.4e-<br>43  | (U4038<br>7)  |





|        |               |                                   |     |  |  |  |  |                                    |               |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|------------------------------------|---------------|--------------|-----|------|--------------|--|
| 162822 | ATU024<br>762 | ATL8C3<br>6325:3<br>63..29<br>46  | nap |  |  |  |  | ATL8C3<br>6325:3<br>63..29<br>46   | 0.92          | g28334<br>60 | 100 | 488  | 3.7e-<br>41  | [Arabi<br>dopsis<br>thalia<br>na]  |
| 162823 | ATU024<br>763 | ATL8C2<br>1148:4<br>264..3<br>018 | nap |  |  |  |  | ATL8C2<br>1148:4<br>264..3<br>021  | 0.92          | g43097<br>03 | 100 | 1168 | 6.2e-<br>104 | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162824 | ATU024<br>764 | ATL8C4<br>6216:8<br>33..16<br>2   | nap |  |  |  |  | ATL8C4<br>6216:7<br>84..34<br>2    | 0.92          | g40380<br>66 | 100 | 701  | 2.5e-<br>44  | (AC005<br>897)<br>hypoht<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 162825 | ATU024<br>765 | ATL8C4<br>7570:3<br>081..1<br>004 | nap |  |  |  |  | ATL8C4<br>7570:1<br>380..1<br>004, | 0.92,<br>0.85 | g30753<br>93 | 100 | 626  | 2.5e-<br>43  | (AC004<br>484)<br>hypoht<br>etical   |

|        |               |                                  |     |  |  |  |  |                                   |      |                               |            |             |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|-----------------------------------|------|-------------------------------|------------|-------------|-----------------------------|---|
| 162826 | ATU024<br>766 | ATL8C1<br>270:29<br>02..46<br>26 | nap |  |  |  |  | ATL8C4<br>7570:2<br>748..1<br>682 | 0.92 | g47339<br>67                  | 100        | 825         | 5.9e-<br>62                 | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162827 | ATU024<br>767 | ATL8C1<br>6059:9<br>33..29<br>88 | nap |  |  |  |  | ATL8C1<br>6059:1<br>753..2<br>976 | 0.92 | g22448<br>83,<br>g23885<br>68 | 100,<br>34 | 711,<br>139 | 2.2e-<br>71,<br>1.6e-<br>09 | (Z9733<br>8)<br>simila<br>rity<br>to<br>CONSTA<br>NS<br>protei<br>n -<br>Arabid<br>opsis<br>thalia<br>na [I;<br>(AC000<br>098)<br>YUP8H1<br>2.10<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162828 | ATU024<br>768 | ATL8C8<br>479:81                 | nap |  |  |  |  | ATL8C8<br>479:81                  | 0.91 | g47339<br>82                  | 100        | 1199        | 3.2e-<br>102                | (AC007<br>268)  |

|        |           | ..1305               |     |  |  |  |  | ..1305                                      |            |          |     |      |          |  | hypothetical protein [Arabidopsis thaliana] |
|--------|-----------|----------------------|-----|--|--|--|--|---|------------|----------|-----|------|----------|--|---|
| 162829 | ATU024769 | ATL8C12624:460..3115 | nap |  |  |  |  | ATL8C12624:460..1739, ATL8C12624:2035..3115 | 0.91, 0.48 | g4646226 | 100 | 1236 | 9.9e-118 | (AC007235) hypothetical protein [Arabidopsis thaliana] |   |
| 162830 | ATU024770 | ATL8C20703:71..1078  | nap |  |  |  |  | ATL8C20703:296..1078                        | 0.91       | g4733976 | 100 | 1071 | 1.4e-69  | (AC007264) hypothetical protein [Arabidopsis thaliana] |   |
| 162831 | ATU024771 | ATL8C42182:1839..856 | nap |  |  |  |  | ATL8C42182:1839..856                        | 0.91       | g3411152 | 100 | 634  | 1.9e-65  | (AF066050) thymidine kinase [Oryza sativa]             |   |
| 162832 | ATU024772 | ATL8C8924:929..2110  | nap |  |  |  |  | ATL8C8924:929..2110                         | 0.91       | g2827082 | 100 | 1288 | 2.8e-132 | (AF020272) malate dehydr                               |   |

|        |               |                                  |     |  |  |  |  |  |                                  |      |                              |            |             |   |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|------------------------------|------------|-------------|---|---|
| 162833 | ATU024<br>773 | ATL8C6<br>433:26<br>70..53<br>6  | nap |  |  |  |  |  | ATL8C6<br>433:24<br>25..53<br>6  | 0.91 | g38057<br>58                 | 100        | 1287        | 1.3e-<br>66   | (AC005<br>693)<br>putati<br>ve<br>gag-<br>protea<br>se<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 162834 | ATU024<br>774 | ATL8C4<br>3613:6<br>44..19<br>86 | nap |  |  |  |  |  | ATL8C4<br>3613:6<br>44..19<br>40 | 0.91 | g22447<br>38,<br>g68842<br>0 | 100,<br>99 | 675,<br>104 | (D8841<br>6)<br>endo-<br>1,3-<br>beta-<br>glucan<br>ase<br>[Gossy<br>pium<br>hirsut<br>um];<br>(D2645<br>2)<br>tumor-<br>relate<br>d<br>protei<br>n<br>[Nicot<br>iana<br>glauca |   |



|        |                       |                                  |     |  |  |  |               |              |     |      |              |    |   |
|--------|-----------------------|----------------------------------|-----|--|--|--|---------------|--------------|-----|------|--------------|----|---|
| 776    | 310:28<br>8..101<br>4 |                                  |     |  |  | 310:33<br>7..836   |               | 66           |     |      |              | 26 | 897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 162837 | ATU024<br>777         | ATL8C5<br>785:13<br>8..108<br>6  | nap |  |  | ATL8C5<br>785:56<br>5..108<br>6  | 0.90          | g45586<br>87 | 100 | 935  |              |    | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 162838 | ATU024<br>778         | ATL8C4<br>6217:6<br>820..3<br>56 | nap |  |  | ATL8C4<br>6217:3<br>134..3<br>56,<br>ATL8C4<br>6217:6<br>425..3<br>762 | 0.90,<br>0.76 | g10762<br>74 | 100 | 1190 | 8.0e-<br>124 |    | cucumi<br>sin<br>(EC<br>3.4.21<br>.25)<br>precu<br>sor -<br>muskm<br>elon<br>(fragm<br>ent)<br>[] |
| 162839 | ATU024<br>779         | ATL8C5<br>0143:2<br>173..8<br>7  | nap |  |  | ATL8C5<br>0143:2<br>173..8<br>7  | 0.90          | g45811<br>43 | 100 | 549  | 1.7e-<br>56  |    | (AC006<br>919)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia                   |

|        |               |                                   |     |  |  |  |                                   |      |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
| 162840 | ATU024<br>780 | ATL8C1<br>3442:3<br>974..2<br>919 | nap |  |  |  | ATL8C1<br>3442:3<br>974..3<br>262 | 0.90 | g44552<br>97 | 100 | 677  | 2.2e-<br>71  | (AL035<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162841 | ATU024<br>781 | ATL8C3<br>5991:2<br>954..7<br>36  | nap |  |  |  | ATL8C3<br>5991:2<br>954..7<br>36  | 0.90 | g45809<br>90 | 100 | 1686 | 6.7e-<br>170 | (AF120<br>335)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162842 | ATU024<br>782 | ATL8C4<br>98:785<br>7..633<br>9   | nap |  |  |  | ATL8C4<br>98:779<br>1..633<br>9   | 0.90 | g46783<br>47 | 100 | 1784 | 7.6e-<br>184 | (AL049<br>659)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 162843 | ATU024<br>783 | ATL8C1<br>4345:5<br>537..4<br>554 | nap |  |  |  | ATL8C1<br>4345:5<br>530..4<br>554 | 0.90 | g48352<br>43 | 100 | 690  | 2.9e-<br>48  | (AL049<br>862)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |

|        |               |                                   |     |  |  |  |                                   |      |                               |            |              |                              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|------------|--------------|------------------------------|--|
| 162844 | ATU024<br>784 | ATL8C4<br>0985:1<br>19..11<br>76  | nap |  |  |  | ATL8C4<br>0985:1<br>19..10<br>48  | 0.90 | g40380<br>66                  | 100        | 552          | 4.6e-<br>41                  | na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 162845 | ATU024<br>785 | ATL8C2<br>1264:2<br>174..4<br>297 | nap |  |  |  | ATL8C2<br>1264:2<br>174..4<br>258 | 0.90 | g48357<br>67                  | 100        | 519          | 1.7e-<br>48                  | (AC007<br>202)<br>T8K14.<br>16<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 162846 | ATU024<br>786 | ATL8C4<br>6028:4<br>435..2<br>071 | nap |  |  |  | ATL8C4<br>6028:4<br>435..2<br>071 | 0.89 | g24987<br>31                  | 100        | 1618         | 5.6e-<br>160                 | PROBAB<br>LE<br>NADP-<br>DEPEND<br>ENT<br>OXIDOR<br>EDUCTA<br>SE P1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162847 | ATU024<br>787 | ATL8C1<br>4458:7<br>513..9<br>883 | nap |  |  |  | ATL8C1<br>4458:7<br>513..9<br>579 | 0.89 | g40380<br>66,<br>g42622<br>10 | 100,<br>57 | 822,<br>1099 | 2.1e-<br>34,<br>6.9e-<br>112 | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |



|        |               |                                  |     |  |  |  |  |  |        |              |     |      |             |   |
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| 162848 | ATU024<br>788 | ATL8C1<br>5871:1<br>68..18<br>19 | nap |  |  |  |  |  | 0.89   | g36000<br>30 | 100 | 864  | 1.2e-<br>83 | nal;<br>(AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162849 | ATU024        | ATL8C1                           | nap |  |  |  |  |  | ATL8C1 | g13284       | 100 | 1045 | 9.0e-       | (AF080<br>119)<br>contai<br>ns<br>simila<br>rity<br>to<br>ankyri<br>n<br>repeat<br>s<br>(Pfam:<br>ank.hm<br>m,<br>score:<br>13.93,<br>14.93<br>and<br>27.78)<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |  | ATL8C1 |              |     |      | 60S         |   |

|        |               |                                  |                                  |     |  |  |  |  |      |  |  |     |      |              |  |
|--------|---------------|----------------------------------|----------------------------------|-----|--|--|--|--|------|--|--|-----|------|--------------|--|
| 162850 | 789           | 6341:4<br>63..14<br>04           | 6341:4<br>63..14<br>04           |     |  |  |  |  | 9    |  |  |     |      | 98           | RIBOSO<br>MAL<br>PROTEI<br>N L2<br>[Nicot<br>iana<br>tabacu<br>m]                          |
|        | ATU024<br>790 | ATL8C3<br>2133:5<br>74..23<br>59 | ATL8C3<br>2133:5<br>74..23<br>59 | nap |  |  |  |  | 0.89 |  |  | 100 | 2251 | 6.0e-<br>206 | (X9462<br>5)<br>amp-<br>bindin<br>g<br>protei<br>n<br>[Brass<br>ica<br>napus]              |
| 162851 | ATU024<br>791 | ATL8C7<br>587:21<br>66..38<br>39 | ATL8C7<br>587:21<br>66..38<br>39 | nap |  |  |  |  | 0.89 |  |  | 100 | 691  | 1.6e-<br>68  | (AJ001<br>009)<br>pore<br>protei<br>n of<br>24 kD<br>(OEP24<br>)<br>[Pisum<br>sativu<br>m] |
| 162852 | ATU024<br>792 | ATL8C1<br>7125:1<br>869..3<br>41 | ATL8C1<br>7125:1<br>869..3<br>51 | nap |  |  |  |  | 0.89 |  |  | 100 | 996  | 2.7e-<br>102 | (AI035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 162853 | ATU024        | ATL8C1                           | ATL8C1                           | nap |  |  |  |  | 0.89 |  |  | 100 | 3585 | 0.0          | (AC004   |

|        |                         |                                  |     |  |  |                                  |      |              |     |      |              |  |  |
|--------|-------------------------|----------------------------------|-----|--|--|----------------------------------|------|--------------|-----|------|--------------|--|--|
| 793    | 1187:8<br>786..3<br>908 |                                  |     |  |  | 1187:8<br>786..3<br>915          |      | 11           |     |      |              |  | 482)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162854 | ATU024<br>794           | ATL8C1<br>1541:9<br>81..10<br>2  | nap |  |  | ATL8C1<br>1541:9<br>23..10<br>2  | 0.89 | g23469<br>72 | 100 | 354  | 3.4e-<br>28  | (AB006<br>598)<br>ZPT2-<br>11<br>[Petun<br>ia x<br>hybrid<br>a]  |  |
| 162855 | ATU024<br>795           | ATL8C1<br>9832:9<br>23..21<br>66 | nap |  |  | ATL8C1<br>9832:9<br>23..21<br>66 | 0.89 | g68272<br>8  | 100 | 750  | 2.3e-<br>75  | (I4003<br>1) S-<br>adenos<br>yl-L-<br>methio<br>nine:t<br>rans-<br>caffeoyl-<br>Coenzy<br>me A<br>3-O-<br>methyl<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 162856 | ATU024<br>796           | ATL8C4<br>4406:2<br>1..125<br>3  | nap |  |  | ATL8C4<br>4406:2<br>1..943       | 0.89 | g44173<br>05 | 100 | 1464 | 1.2e-<br>138 | (AC006<br>446)<br>hypoth<br>etical   |  |

|        |               |                                   |     |  |  |  |  |                                   |      |              |     |      |              |  |
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| 162857 | ATU024<br>797 | ATL8C1<br>2166:4<br>910..2<br>703 | nap |  |  |  |  | ATL8C1<br>2166:4<br>910..2<br>703 | 0.89 | g42622<br>13 | 100 | 592  | 1.6e-<br>53  | protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162858 | ATU024<br>798 | ATL8C1<br>6009:2<br>402..5<br>522 | nap |  |  |  |  | ATL8C1<br>6009:2<br>402..5<br>522 | 0.88 | g30636<br>94 | 100 | 724  | 2.8e-<br>67  | (AL022<br>537)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 162859 | ATU024<br>799 | ATL8C3<br>306:18<br>31..42<br>60  | nap |  |  |  |  | ATL8C3<br>306:18<br>31..42<br>60  | 0.88 | g36953<br>97 | 100 | 1846 | 1.5e-<br>174 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162860 | ATU024<br>800 | ATL8C3<br>3787:1<br>0..241        | nap |  |  |  |  | ATL8C3<br>3787:1<br>0..238        | 0.88 | g29807<br>61 | 100 | 655  | 4.6e-<br>45  | (AL022<br>198)<br>putati   |

|        |               |                            |     |  |  |  |  |  |                            |      |  |  |  |                               |            |              |                              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|----------------------------|------|--|--|--|-------------------------------|------------|--------------|------------------------------|--|
| 162861 | ATU024<br>801 | ATL8C3<br>1696:6<br>6..753 | nap |  |  |  |  |  | 7                          |      |  |  |  |                               |            |              |                              | ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                            |     |  |  |  |  |  | ATL8C3<br>1696:8<br>3..753 | 0.88 |  |  |  | g63046<br>2                   | 100        | 227          | 1.9e-<br>10                  | Micron<br>eme<br>antige<br>n -<br>Sarcoc<br>ystis<br>muris<br>[Sarco<br>cystis<br>muris]   |
| 162862 | ATU024<br>802 | ATL8C1<br>731:75<br>..4021 | nap |  |  |  |  |  | ATL8C1<br>731:75<br>..3891 | 0.88 |  |  |  | g36953<br>97,<br>g44173<br>09 | 100,<br>31 | 1642,<br>353 | 5.3e-<br>151,<br>1.7e-<br>26 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>446)<br>putati<br>ve pol<br>ypr<br>otei<br>n with a<br>revers<br>e<br>transc<br>riptase |

|        |               |                                   |     |  |  |  |  |  |      |              |     |      |              |   |
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| 162863 | ATU024<br>803 | ATL8C2<br>0567:1<br>000..5<br>041 | nap |  |  |  |  |  | 0.88 | g32427<br>11 | 100 | 2969 | 4.4e-<br>224 | domain<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC003<br>040)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162864 | ATU024<br>804 | ATL8C3<br>46:511<br>5..329<br>8   | nap |  |  |  |  |  | 0.88 | g32928<br>33 | 100 | 790  | 3.7e-<br>59  | (AL031<br>018)<br>putati<br>ve<br>membra<br>ne<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 162865 | ATU024<br>805 | ATL8C1<br>4515:3<br>849..1<br>2   | nap |  |  |  |  |  | 0.88 | g43253<br>51 | 100 | 3592 | 0.0          | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei                      |

|        |               |                                   |     |  |  |  |  |  |      |              |     |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|------|--------------|-----|-----|-------------|--|
| 162866 | ATU024<br>806 | ATL8C4<br>9898:9<br>689..8<br>166 | nap |  |  |  |  |  | 0.87 | g40380<br>66 | 100 | 752 | 8.5e-<br>50 | n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162867 | ATU024<br>807 | ATL8C1<br>2816:1<br>833..7<br>8   | nap |  |  |  |  |  | 0.87 | g31579<br>42 | 100 | 232 | 1.5e-<br>27 | (AC002<br>131)<br>Simila<br>r to<br>style<br>develo<br>pment-<br>specif<br>ic<br>protei<br>n 9612<br>precu<br>sor<br>gb X55<br>193<br>and<br>pectat<br>e<br>lyase<br>P59<br>precu<br>sor<br>gb X15 |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |     |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|---|
| 162868 | ATU024<br>808 | ATL8C4<br>7427:5<br>46..33<br>82  | nap |  |  |  |  |  | ATL8C4<br>7427:5<br>46..33<br>82  | 0.87 | g36458<br>98 | 100 | 2567 | 9.4e-<br>243 | 499<br>from<br>Lycopé<br>rsicon<br>escule<br>ntum.<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 162869 | ATU024<br>809 | ATL8C8<br>57:310<br>7..113        | nap |  |  |  |  |  | ATL8C8<br>57:310<br>7..113        | 0.87 | g34027<br>13 | 100 | 349  | 4.2e-<br>26  | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possib<br>ly a<br>post-<br>transp<br>ositio<br>n mutati<br>on<br>[Zea<br>mays] |
| 162870 | ATU024<br>810 | ATL8C1<br>5904:2<br>588..1<br>299 | nap |  |  |  |  |  | ATL8C1<br>5904:2<br>247..1<br>299 | 0.87 | g28424<br>90 | 100 | 934  | 1.1e-<br>87  | (AC004<br>261)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                   |     |  |  |  |  |  |                                   |      |              |     |      |              | (AL021<br>749)<br>heat-<br>shock<br>protei  |



|        |               |                                  |     |  |  |  |  |  |                                  |      |              |      |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|------|-----|-------------|--|
| 162871 | ATU024<br>811 | ATL8C9<br>867:99<br>18..74<br>85 | nap |  |  |  |  |  | ATL8C9<br>867:98<br>88..74<br>85 | 0.87 | g40493<br>41 | 100  | 528 | 7.5e-<br>37 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AL034<br>567)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]           |
| 162872 | ATU024<br>812 | ATL8C4<br>1407:3<br>17..21<br>22 | nap |  |  |  |  |  | ATL8C4<br>1407:3<br>17..19<br>14 | 0.87 | g47340<br>01 | 100  | 841 | 2.0e-<br>84 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC007<br>187)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]       |
| 162873 | ATU024<br>813 | ATL8C1<br>274:19<br>31..93<br>6  | nap |  |  |  |  |  | ATL8C1<br>274:18<br>87..12<br>60 | 0.86 | g47739<br>11 | 100. | 649 | 4.4e-<br>66 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 162874 | ATU024<br>814 | ATL8C2<br>3313:2<br>964..3<br>89 | nap |  |  |  |  |  | ATL8C2<br>3313:2<br>955..3<br>89 | 0.86 | g22448<br>31 | 100  | 999 | 1.4e-<br>70 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(Z9733<br>7)<br>hypoth<br>etical  |

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| 162875 | ATU024<br>815 | ATL8C2<br>5155:2<br>336..1<br>261 | nap |  |  |  |  |  | ATL8C2<br>5155:2<br>336..1<br>276 | 0.86 | g32491<br>07 | 100 | 889  | 3.3e-<br>83              | protein<br>[Arabis<br>dopsis<br>thaliana]                 |
| 162876 | ATU024<br>816 | ATL8C4<br>0719:4<br>1..111<br>3   | nap |  |  |  |  |  | ATL8C4<br>0719:4<br>1..111<br>3   | 0.86 | g42621<br>75 | 100 | 883  | 5.9e-<br>92              | (AC005<br>508)<br>12894<br>[Arabis<br>dopsis<br>thaliana] |
| 162877 | ATU024<br>817 | ATL8C5<br>893:36<br>62..13        | nap |  |  |  |  |  | ATL8C5<br>893:36<br>62..13        | 0.86 | g40068<br>24 | 100 | 1847 | (AC005<br>970)<br>hypoth |   |

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|--------|---------------|----|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
| 162878 | ATU024<br>818 | 31 | ATL8C4<br>4061:4<br>86..18<br>60  | nap |  |  |  |  |  | ATL8C4<br>4061:4<br>86..18<br>60  | 0.86 | g38106<br>01 | 100 | 1193 | 9.4e-<br>111 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 162879 | ATU024<br>819 | 31 | ATL8C1<br>4362:8<br>657..5<br>191 | nap |  |  |  |  |  | ATL8C1<br>4362:8<br>116..5<br>433 | 0.86 | g45876<br>83 | 100 | 2675 | 3.1e-<br>197 | (AC007<br>197)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162880 | ATU024<br>820 |    | ATL8C1<br>8325:1<br>782..5<br>232 | nap |  |  |  |  |  | ATL8C1<br>8325:1<br>938..5<br>186 | 0.86 | g48951<br>83 | 100 | 2304 | 6.5e-<br>213 | (AC007<br>661)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162881 | ATU024<br>821 |    | ATL8C1<br>609:18<br>01..10        | nap |  |  |  |  |  | ATL8C1<br>609:18<br>01..10        | 0.86 | g45389<br>93 | 100 | 613  | 6.5e-<br>56  | (AL049<br>481)<br>putati   |

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|--------|---------------|----------------------------------|-----|--|--|--|--|---|----------------------------------|------|--|----------------|---------------------|--|
| 162882 | ATU024<br>822 | ATL8C4<br>3897:2<br>849..9<br>22 | nap |  |  |  |  | 8 | ATL8C4<br>3897:2<br>849..9<br>22 | 0.86 | g38105<br>93                                   | 100            | 2160                | ve<br>host<br>respon<br>se<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 162883 | ATU024<br>823 | ATL8C9<br>272:29<br>86..28<br>2  | nap |  |  |  |  |   | ATL8C9<br>272:21<br>85..29<br>0  | 0.86 | g42638<br>30                                   | 100            | 2196                | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162884 | ATU024<br>824 | ATL8C1<br>6424:2<br>53..33<br>96 | nap |  |  |  |  |   | ATL8C1<br>6424:2<br>53..30<br>03 | 0.86 | g47739<br>11,<br>g38057<br>59,<br>g45593<br>61 | 100,<br>99, 99 | 755,<br>179,<br>536 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found                                |

|        |               |                                  |     |  |  |  |  |  |  |      |              |     |      |              |   |
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| 162885 | ATU024<br>825 | ATL8C2<br>3846:3<br>763..5<br>26 | nap |  |  |  |  |  |  | 0.86 | g43888<br>21 | 100 | 1676 | 2.2e-<br>178 | [Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>585)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162886 | ATU024<br>826 | ATL8C2<br>7245:2<br>381..9       | nap |  |  |  |  |  |  | 0.86 | g48357<br>67 | 100 | 735  | 2.9e-<br>76  | (AC007<br>202)<br>T8K14.  |

|        |               |    |    |     |  |  |  |  |  |               |                               |            |              |                         |   |
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| 162887 | ATU024<br>827 | 11 | 11 | nap |  |  |  |  |  | 0.86          | g40380<br>66                  | 100        | 119          | 0.95                    | 16<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162888 | ATU024<br>828 | 11 | 11 | nap |  |  |  |  |  | 0.86,<br>0.84 | g36500<br>36,<br>g45444<br>33 | 100,<br>40 | 2527,<br>142 | 1.2e-<br>244,<br>0.0021 | (AC005<br>396)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>955)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162889 | ATU024<br>829 | 11 | 11 | nap |  |  |  |  |  | 0.86          | g41004<br>33                  | 100        | 372          | 4.2e-<br>37             | (AF000<br>378)<br>beta-<br>glucos<br>idase  |



|        |               |                                   |     |  |  |  |  |  |  |                                   |      |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
| 162893 | ATU024<br>833 | ATL8C4<br>1805:2<br>83..21<br>02  | nap |  |  |  |  |  |  | ATL8C4<br>1805:2<br>83..20<br>86  | 0.85 | g46462<br>26 | 100 | 1346 | 6.5e-<br>115 | (AC007<br>235)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162894 | ATU024<br>834 | ATL8C3<br>0928:4<br>12..15<br>45  | nap |  |  |  |  |  |  | ATL8C3<br>0928:4<br>12..14<br>26  | 0.85 | g35823<br>21 | 100 | 1363 | 2.7e-<br>128 | (AC005<br>496)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162895 | ATU024<br>835 | ATL8C3<br>5:2064<br>..197         | nap |  |  |  |  |  |  | ATL8C3<br>5:2064<br>..197         | 0.85 | g45585<br>68 | 100 | 1576 | 2.4e-<br>164 | (AC007<br>138)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162896 | ATU024<br>836 | ATL8C4<br>1407:5<br>032..3<br>560 | nap |  |  |  |  |  |  | ATL8C4<br>1407:4<br>776..3<br>560 | 0.85 | g46462<br>24 | 100 | 1458 | 1.1e-<br>123 | (AC007<br>295)<br>hypoth<br>etical   |





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|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|---------------|------|--------------|-----|------|--------------|--|
| 162900 | ATU024<br>840 | ATL8C1<br>6899:4<br>..4191       | nap |  |  |  |  |  | 269..3<br>438                    | 269..3<br>496 | 0.84 | g33778<br>36 | 100 | 2113 | 3.8e-<br>163 | germin-<br>like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                  |     |  |  |  |  |  | ATL8C1<br>6899:1<br>01..41<br>91 |               |      |              |     |      |              | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>es<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162901 | ATU024<br>841 | ATL8C1<br>586:55<br>25..20<br>76 | nap |  |  |  |  |  | ATL8C1<br>586:54<br>52..20<br>76 |               | 0.84 | g39534<br>58 | 100 | 1378 | 5.3e-<br>103 | (AC002<br>328)<br>F20N2.<br>3<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162902 | ATU024<br>842 | ATL8C9<br>552:20<br>21..19<br>3  | nap |  |  |  |  |  | ATL8C9<br>552:20<br>21..20<br>9  |               | 0.84 | g46462<br>26 | 100 | 1335 | 9.9e-<br>123 | (AC007<br>235)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis  |

|        |               |                                   |     |  |  |  |  |                                   |      |              |     |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|---|
| 162903 | ATU024<br>843 | ATL8C2<br>0631:2<br>96..35<br>52  | nap |  |  |  |  | ATL8C2<br>0631:9<br>20..35<br>49  | 0.84 | g10762<br>74 | 100 | 1192 | 3.4e-<br>87  | cucumi<br>sin<br>(EC<br>3.4.21<br>.25)<br>precu<br>sor -<br>muskm<br>elon<br>(fragm<br>ent)<br>[] |
| 162904 | ATU024<br>844 | ATL8C1<br>617:64<br>97..13<br>551 | nap |  |  |  |  | ATL8C1<br>617:64<br>97..12<br>720 | 0.84 | g47339<br>86 | 100 | 2999 | 7.4e-<br>180 | (AC007<br>209)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 162905 | ATU024<br>845 | ATL8C7<br>178:16<br>23..24<br>96  | nap |  |  |  |  | ATL8C7<br>178:16<br>23..24<br>73  | 0.84 | g45860<br>99 | 100 | 301  | 1.0e-<br>28  | (AL049<br>638)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 162906 | ATU024<br>846 | ATL8C4<br>2515:5<br>28..24<br>98  | nap |  |  |  |  | ATL8C4<br>2515:5<br>28..24<br>98  | 0.84 | g37383<br>38 | 100 | 1763 | 6.9e-<br>185 | (AC005<br>170)<br>putati<br>ve<br>polyga<br>lactur  |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|-------|--------------|------|------|--------------|--|--|
| 162907 | ATU024<br>847 | ATL8C3<br>3946:4<br>131..7<br>364 | nap |  |  |  |  |  | ATL8C3<br>3946:4<br>131..7<br>262 | 0.84  | g45876<br>83 | 100  | 3066 |              |  | onase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162908 | ATU024<br>848 | ATL8C3<br>3251:7<br>8..125<br>8   | nap |  |  |  |  |  | ATL8C3<br>3251:2<br>59..12<br>58  | 0.84  | g42638<br>23 | 100  | 656  | 4.1e-<br>70  |  | (AC007<br>197)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162909 | ATU024<br>849 | ATL8C8<br>232:11<br>88..24        | nap |  |  |  |  |  | ATL8C8<br>232:46<br>4..24         | 0.84  | g22448<br>61 | 100  | 540  | 1.1e-<br>41  |  | (Z9733<br>7)<br>cucumi<br>sin<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 162910 | ATU024<br>850 | ATL8C1<br>9899:1<br>590..2<br>83  | nap |  |  |  |  |  | ATL8C1<br>9899:1<br>590..1<br>045 | 0.84  | g13635<br>28 | 100  | 1506 | 9.3e-<br>136 |  | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]   |
| 162911 | ATU024        | ATL8C8                            | nap |  |  |  |  |  | ATL8C8                            | 0.84, | g44327       | 100, | 906, | 3.4e-        |  | (AC006   |



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| 162913 | ATU024<br>853 | ATL8C3<br>6325:3<br>920..6<br>179 | nap |  |  |  |  | ATL8C3<br>6325:3<br>920..6<br>179 | 0.84 | g25831<br>31 | 100 | 1067 | 2.0e-<br>119 | thalia<br>na]<br>(AC002<br>387)<br>putati<br>ve<br>pectin<br>estera<br>se<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162914 | ATU024<br>854 | ATL8C7<br>229:54<br>..2513        | nap |  |  |  |  | ATL8C7<br>229:72<br>..2510        | 0.84 | g32928<br>29 | 100 | 1034 | 2.8e-<br>86  | (AL031<br>018)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 162915 | ATU024<br>855 | ATL8C1<br>0334:2<br>403..1<br>371 | nap |  |  |  |  | ATL8C1<br>0334:2<br>403..1<br>440 | 0.83 | g36081<br>28 | 100 | 1012 |              | (AC005<br>314)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 162916 | ATU024<br>856 | ATL8C1<br>6777:2<br>38..16<br>81  | nap |  |  |  |  | ATL8C1<br>6777:2<br>38..16<br>72  | 0.83 | g27393<br>73 | 100 | 937  | 5.5e-<br>100 | (AC002<br>505)<br>putati<br>ve<br>flavon<br>ol 3-<br>O-  |

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| 162917 | ATU024<br>857 | ATL8C1<br>5299:3<br>614..4<br>34  | nap |  |  |  |  |  | ATL8C1<br>5299:3<br>589..4<br>34  | 0.83 | g4l159<br>19 | 100 | 1749 | 1.2e-<br>174 | glucosyltransferase [Arabi dopsis thaliana]             |
| 162918 | ATU024<br>858 | ATL8C1<br>4747:2<br>391..1<br>727 | nap |  |  |  |  |  | ATL8C1<br>4747:2<br>342..1<br>771 | 0.83 | g40380<br>66 | 100 | 740  | 1.7e-<br>23  | (AC005897) hypothetical protein [Arabi dopsis thaliana] |

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| 162919 | ATU024<br>859 | ATL8C2<br>5585:3<br>177..1<br>656 | nap |  |  |  | ATL8C2<br>5585:3<br>177..1<br>656          | 0.83          | g45899<br>54 | 100 | 425  | 3.1e-<br>52  | thalia<br>nal<br>(AC007<br>169)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]      |
| 162920 | ATU024<br>860 | ATL8C2<br>9676:6<br>0..342<br>4   | nap |  |  |  | ATL8C2<br>9676:6<br>0..342<br>4            | 0.83          | g42638<br>30 | 100 | 2721 | 1.1e-<br>208 | (AC006<br>067)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]                       |
| 162921 | ATU024<br>861 | ATL8C4<br>9616:7<br>6..392<br>0   | nap |  |  |  | ATL8C4<br>9616:7<br>6..392<br>0            | 0.83          | g18421<br>88 | 100 | 1223 | 8.0e-<br>128 | (Y0849<br>9)<br>mitoch<br>ondria<br>l<br>phosph<br>ate<br>transl<br>ocator<br>[Betul<br>a<br>pendul<br>a] |
| 162922 | ATU024<br>862 | ATL8C4<br>073:26<br>24..57<br>9   | nap |  |  |  | ATL8C4<br>073:12<br>53..57<br>9,<br>ATL8C4 | 0.83,<br>0.58 | g44067<br>91 | 100 | 879  | 2.1e-<br>69  | (AC006<br>304)<br>hypo<br>thetical<br>protein   |



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| 162923 | ATU024<br>863 | ATL8C2<br>9959:1<br>718..7<br>70  | nap |  |  |  | 073:26<br>24..15<br>17            | 0.83 | g45586<br>87 | 100 | 1077 | 1.7e-<br>89  | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162924 | ATU024<br>864 | ATL8C1<br>2010:3<br>016..2<br>149 | nap |  |  |  | ATL8C1<br>2010:3<br>016..2<br>149 | 0.83 | g37023<br>19 | 100 | 498  | 3.7e-<br>28  | (AC005<br>397)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162925 | ATU024<br>865 | ATL8C4<br>8414:8<br>88..49        | nap |  |  |  | ATL8C4<br>8414:8<br>40..84        | 0.83 | g30634<br>51 | 100 | 915  | 5.0e-<br>93  | (AC003<br>981)<br>F22013<br>.13<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162926 | ATU024<br>866 | ATL8C4<br>4239:1<br>985..4<br>712 | nap |  |  |  | ATL8C4<br>4239:2<br>079..4<br>712 | 0.83 | g80769<br>8  | 100 | 1226 | 6.6e-<br>105 | (D3220<br>6)<br>prepro<br>-<br>cucumi<br>sin<br>[Cucum   |

|        |               |                                   |     |  |  |  |                                   |      |              |     |      |              |  |
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| 162927 | ATU024<br>867 | ATL8C3<br>4836:3<br>223..1<br>952 | nap |  |  |  | ATL8C3<br>4836:3<br>223..1<br>952 | 0.83 | g23472<br>07 | 100 | 1717 | 7.5e-<br>180 | is<br>melon<br>(AC002<br>338)<br>APG<br>protein<br>isolated<br>[Arabidopsis<br>thaliana<br>na]   |
| 162928 | ATU024<br>868 | ATL8C4<br>1663:1<br>220..3<br>23  | nap |  |  |  | ATL8C4<br>1663:1<br>214..3<br>30  | 0.83 | g35519<br>54 | 100 | 465  | 3.4e-<br>21  | (AF082<br>030)<br>senescence-<br>associated<br>protein 5<br>[Hemerocallis<br>hybrid<br>cultivar] |
| 162929 | ATU024<br>869 | ATL8C2<br>4774:2<br>63..18<br>87  | nap |  |  |  | ATL8C2<br>4774:2<br>63..18<br>78  | 0.83 | g45876<br>80 | 100 | 1628 | 1.1e-<br>150 | (AC007<br>197)<br>putative<br>cytochrome<br>p450<br>[Arabidopsis<br>thaliana<br>na]              |
| 162930 | ATU024<br>870 | ATL8C3<br>0012:3<br>376..1        | nap |  |  |  | ATL8C3<br>0012:3<br>376..2        | 0.82 | g45585<br>62 | 100 | 2633 | 1.8e-<br>256 | (AC007<br>138)<br>putative   |



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| 162933 | ATU024<br>873 | ATL8C3<br>4873:6<br>5..152<br>8  | nap |  |  |  | ATL8C3<br>4873:6<br>5..152<br>8  | 0.82 | g25831<br>28 | 100 | 705  | 2.2e-<br>73  | (AC002<br>387)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162934 | ATU024<br>874 | ATL8C1<br>2573:7<br>04..33<br>22 | nap |  |  |  | ATL8C1<br>2573:8<br>40..33<br>22 | 0.82 | g27390<br>10 | 100 | 1654 | 9.4e-<br>157 | (AF022<br>464)<br>CYP77A<br>3p<br>[Glyci<br>ne<br>max]                                 |
| 162935 | ATU024<br>875 | ATL8C3<br>2068:3<br>16..17<br>97 | nap |  |  |  | ATL8C3<br>2068:3<br>16..16<br>94 | 0.82 | g30803<br>61 | 100 | 1545 | 5.0e-<br>159 | (AL022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162936 | ATU024<br>876 | ATL8C3<br>3208:7<br>25..27       | nap |  |  |  | ATL8C3<br>3208:7<br>25..27       | 0.82 | g45859<br>33 | 100 | 382  | 3.8e-<br>39  | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162937 | ATU024<br>877 | ATL8C2<br>0796:2<br>195..2       | nap |  |  |  | ATL8C2<br>0796:2<br>195..4       | 0.82 | g36458<br>98 | 100 | 2443 | 1.3e-<br>218 | (U6840<br>8) in-<br>frame  |



|        |               |                                   |     |  |  |  |  |  |                                   |      |                               |            |             |                             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|-------------------------------|------------|-------------|-----------------------------|--|
| 162940 | ATU024<br>880 | ATL8C4<br>2905:1<br>406..2<br>652 | nap |  |  |  |  |  | ATL8C4<br>2905:1<br>541..2<br>651 | 0.81 | g44902<br>96                  | 100        | 905         | 1.1e-<br>100                | line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL035<br>678)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162941 | ATU024<br>881 | ATL8C2<br>3352:6<br>125..4<br>203 | nap |  |  |  |  |  | ATL8C2<br>3352:6<br>125..4<br>203 | 0.81 | g44067<br>95                  | 100        | 959         | 3.0e-<br>74                 | (AC006<br>304)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162942 | ATU024<br>882 | ATL8C3<br>4828:4<br>126..7<br>76  | nap |  |  |  |  |  | ATL8C3<br>4828:4<br>126..7<br>96  | 0.81 | g33414<br>17,<br>g28276<br>39 | 100,<br>99 | 661,<br>121 | 9.3e-<br>54,<br>2.6e-<br>09 | (AJ009<br>657)<br>Mu3<br>subuni<br>t of<br>clathr<br>in-<br>associ<br>ated<br>protei<br>n<br>comple<br>x AP-3<br>[Droso                      |

|        |               |                                   |     |  |  |  |  |                                   |      |              |     |      |              |   |
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| 162943 | ATU024<br>883 | ATL8C1<br>8577:1<br>406..3<br>999 | nap |  |  |  |  | ATL8C1<br>8577:1<br>415..3<br>999 | 0.81 | g48504<br>12 | 100 | 1862 | 7.9e-<br>166 | phila<br>melano<br>gaster<br>];<br>(AL021<br>636)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162944 | ATU024<br>884 | ATL8C8<br>935:35<br>0..218<br>5   | nap |  |  |  |  | ATL8C8<br>935:42<br>5..176<br>8   | 0.81 | g34618<br>45 | 100 | 626  | 1.5e-<br>47  | (AC005<br>315)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 162945 | ATU024<br>885 | ATL8C3<br>1007:2<br>394..2<br>0   | nap |  |  |  |  | ATL8C3<br>1007:2<br>394..2<br>6   | 0.81 | g48951<br>68 | 100 | 673  | 1.1e-<br>63  | (AC007<br>662)<br>putati<br>ve  |







|        |               |                                   |     |  |  |  |  |  |  |  |               |              |     |      |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|---------------|--------------|-----|------|-------------|--|
| 162951 | ATU024<br>891 | ATL8C4<br>6320:1<br>895..2<br>984 | nap |  |  |  |  |  |  | ATL8C4<br>6320:2<br>490..2<br>984                                      | 0.80          | g45875<br>91 | 100 | 412  | 1.9e-<br>42 | on<br>[Zea<br>mays]<br>(AC007<br>232)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162952 | ATU024<br>892 | ATL8C3<br>1927:5<br>791..4<br>18  | nap |  |  |  |  |  |  | ATL8C3<br>1927:2<br>051..4<br>18,<br>ATL8C3<br>1927:5<br>791..3<br>021 | 0.80,<br>0.77 | g22447<br>52 | 100 | 1021 | 2.8e-<br>83 | (Z9733<br>5)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 162953 | ATU024<br>893 | ATL8C4<br>8538:5<br>3..361<br>1   | nap |  |  |  |  |  |  | ATL8C4<br>8538:5<br>3..361<br>1  | 0.80          | g47340<br>01 | 100 | 828  | 8.4e-<br>85 | (AC007<br>187)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 162954 | ATU024<br>894 | ATL8C1<br>8243:7<br>573..6<br>661 | nap |  |  |  |  |  |  | ATL8C1<br>8243:7<br>573..6<br>670                                      | 0.80          | g42042<br>77 | 100 | 622  | 5.8e-<br>64 | (AC004<br>146)<br>Hypo-<br>thetical<br>protein<br>[Arabi<br>na]  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |     |     |             |   |
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| 162955 | ATU024<br>895 | ATL8C4<br>8583:2<br>35..15<br>63 | nap |  |  |  |  |  | ATL8C4<br>8583:2<br>35..15<br>63 | 0.80 | g27548<br>16 | 100 | 490 | 2.5e-<br>53 | dopsis<br>thalia<br>na]<br>(AF021<br>346)<br>non-<br>race<br>specif<br>ic.<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162956 | ATU024<br>896 | ATL8C5<br>878:55<br>..854        | nap |  |  |  |  |  | ATL8C5<br>878:55<br>..686        | 0.80 | g46782<br>06 | 100 | 322 |             | (AC007<br>134)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162957 | ATU024<br>897 | ATL8C1<br>680:15<br>4..152<br>5  | nap |  |  |  |  |  | ATL8C1<br>680:15<br>4..146<br>2  | 0.80 | g44327<br>95 | 100 | 834 | 7.8e-<br>52 | (AC006<br>437)<br>putati<br>ve<br>protei<br>n 2 of<br>of the<br>En/Spm<br>transp<br>osable  |

|        |               |                                   |     |  |  |  |  |  |                        |                               |             |              |                     |   |
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| 162958 | ATU024<br>898 | ATL8C3<br>5125:3<br>063..1<br>709 | nap |  |  |  |  | ATL8C3<br>5125:2<br>993..1<br>749                      | 0.80                   | g31231<br>65                  | 100         | 420          | 3.8e-<br>37         | ZINC<br>FINGER<br>PROTEIN<br>N 183<br>[Homo<br>sapien<br>s]                         |
| 162959 | ATU024<br>899 | ATL8C1<br>964:96<br>9..255<br>8   | nap |  |  |  |  | ATL8C1<br>964:96<br>9..255<br>8                        | 0.80                   | g45875<br>26                  | 100         | 1328         | 2.3e-<br>128        | (AC007<br>060)<br>Strong<br>simila<br>rity<br>to<br>F19I3.<br>2 [ ]                 |
| 162960 | ATU024<br>900 | ATL8C7<br>807:21<br>98..87<br>6   | nap |  |  |  |  | ATL8C7<br>807:21<br>98..88<br>2                        | 0.80                   | g49143<br>59                  | 100         | 546          | 8.0e-<br>42         | (AC007<br>289)<br>hypoeth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162961 | ATU024<br>901 | ATL8C1<br>4782:2<br>562..8<br>560 | nap |  |  |  |  | ATL8C1<br>4782:2<br>562..3<br>803,<br>ATL8C1<br>4782:3 | 0.80,<br>0.54,<br>0.43 | g43097<br>67,<br>g30470<br>63 | 100,<br>100 | 4366,<br>185 | 0.0,<br>1.1e-<br>11 | (AC006<br>217)<br>putati<br>ve<br>Athila<br>retro                                   |

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| 162962 | ATU024<br>902 | ATL8C8<br>717:37<br>46..18<br>39 | nap |  |  |  |  |  | 963..5<br>896,<br>ATL8C1<br>4782:6<br>906..8<br>503 | 0.80 | g43097<br>03 | 100 | 580  | 8.8e-<br>39  | lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AF058<br>825)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 162963 | ATU024<br>903 | ATL8C1<br>6254:2<br>53..33<br>63 | nap |  |  |  |  |  | ATL8C1<br>6254:2<br>53..33<br>63                    | 0.79 | g22249<br>11 | 100 | 2195 | 8.2e-<br>197 | (U9304<br>8)<br>somati<br>c<br>embryo<br>genesi<br>s<br>recept<br>or-   |





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| 162968 | ATU024<br>908 | ATL8C1<br>659:14<br>2..418<br>9  | nap |  |  |  |  | ATL8C1<br>659:14<br>2..415<br>3  | 0.79 | g48504<br>12                  | 100        | 3632         | 0.0                 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>288)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162969 | ATU024<br>909 | ATL8C3<br>5282:6<br>672..4<br>18 | nap |  |  |  |  | ATL8C3<br>5282:5<br>176..5<br>77 | 0.79 | g43253<br>51,<br>g42638<br>30 | 100,<br>39 | 3654,<br>517 | 0.0,<br>4.3e-<br>37 | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>067)<br>hypoth<br>etical |



|        |               |                                   |     |  |  |  |  |                                   |      |                               |            |              |                              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|-------------------------------|------------|--------------|------------------------------|--|
| 162970 | ATU024<br>910 | ATL8C3<br>6558:2<br>713..1<br>270 | nap |  |  |  |  | ATL8C3<br>6558:2<br>713..1<br>270 | 0.79 | g42622<br>25                  | 100        | 744          | 9.0e-<br>61                  | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>200)<br>putati<br>ve<br>phosph<br>atidic<br>acid<br>phosph<br>atase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162971 | ATU024<br>911 | ATL8C3<br>1050:2<br>183..3<br>40  | nap |  |  |  |  | ATL8C3<br>1050:1<br>455..4<br>54  | 0.79 | g44067<br>94,<br>g45672<br>99 | 100,<br>64 | 1555,<br>162 | 5.1e-<br>132,<br>5.9e-<br>15 | protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>918)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 162972 | ATU024        | ATL8C3                            | nap |  |  |  |  | ATL8C3                            | 0.79 | g44552                        | 100        | 910          | 1.4e-                        | (AL035   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |     |      |              |   |
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|        | 912           | 1067:1<br>287..2<br>531           |     |  |  |  |  | 1067:1<br>287..2<br>531           | 58   |              |     |      | 92           | 523)<br>acid<br>phosphatase-<br>like<br>protein<br>[Arabidopsis<br>thaliana]  |
| 162973 | ATU024<br>913 | ATL8C2<br>2440:3<br>315..1<br>365 | nap |  |  |  |  | ATL8C2<br>2440:3<br>315..1<br>365 | 0.79 | 933778<br>35 | 100 | 918  | 6.0e-<br>91  | (AF075<br>598)<br>contains<br>similarity<br>to<br>Arabidopsis<br>thaliana<br>downy mildew<br>resistance<br>protein RPP5<br>(GB:U97106)<br>[Arabidopsis<br>thaliana] |
| 162974 | ATU024<br>914 | ATL8C2<br>4767:6<br>599..3<br>642 | nap |  |  |  |  | ATL8C2<br>4767:6<br>279..3<br>642 | 0.79 | 910762<br>74 | 100 | 1280 | 2.5e-<br>110 | cucumisin<br>(EC<br>3.4.21<br>.25)<br>precursor   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |     |      |              |   |
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| 162975 | ATU024<br>915 | ATL8C3<br>8134:3<br>71..42<br>95 | nap |  |  |  |  | ATL8C3<br>8134:3<br>71..42<br>95 | 0.79 | g33416<br>81 | 100 | 670  | 5.9e-<br>56  | AC003<br>672)<br>small<br>GTP-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162976 | ATU024<br>916 | ATL8C4<br>3437:3<br>387..3<br>9  | nap |  |  |  |  | ATL8C4<br>3437:3<br>093..3<br>9  | 0.79 | g43253<br>51 | 100 | 4006 |              | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162977 | ATU024<br>917 | ATL8C3<br>5946:2                 | nap |  |  |  |  | ATL8C3<br>5946:1                 | 0.79 | g48952<br>05 | 100 | 1104 | 1.0e-<br>104 | (AC007<br>661)  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |     |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|-----|------|--------------|---|
| 162978 | ATU024<br>918 | ATL8C3<br>1595:1<br>66..12<br>18 | nap |  |  |  |  | 928..4<br>87                     | 0.78 | g32427<br>04 | 100 | 582  | 2.4e-<br>101 | (AC003<br>040)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 162979 | ATU024<br>919 | ATL8C9<br>47:836<br>4..108<br>03 | nap |  |  |  |  | ATL8C9<br>47:859<br>8..107<br>26 | 0.78 | g30212<br>65 | 100 | 2442 | 7.6e-<br>191 | (AL022<br>347)<br>protei<br>n<br>kinase<br>- like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162980 | ATU024<br>920 | ATL8C2<br>3523:1<br>312..4<br>47 | nap |  |  |  |  | ATL8C2<br>3523:1<br>041..4<br>50 | 0.78 | g43097<br>03 | 100 | 336  | 4.1e-<br>35  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei  |

|        |               |                                   |     |  |  |  |  |  |                                   |      |                               |            |              |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|-------------------------------|------------|--------------|--------------|---|
| 162981 | ATU024<br>921 | ATL8C1<br>7047:2<br>55..12<br>60  | nap |  |  |  |  |  | ATL8C1<br>7047:2<br>55..11<br>93  | 0.78 | g21911<br>96                  | 100        | 550          | 2.0e-<br>42  | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF007<br>271)<br>contai<br>ns a<br>MADS<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162982 | ATU024<br>922 | ATL8C1<br>7043:3<br>35..11<br>28  | nap |  |  |  |  |  | ATL8C1<br>7043:3<br>35..11<br>28  | 0.78 | g12446<br>53                  | 100        | 1163         | 2.7e-<br>76  | (U4100<br>0) gag<br>gene<br>produc<br>t<br>[Zea<br>mays]  |
| 162983 | ATU024<br>923 | ATL8C4<br>9817:3<br>462..1<br>365 | nap |  |  |  |  |  | ATL8C4<br>9817:3<br>462..1<br>365 | 0.78 | g22929<br>21                  | 100        | 967          | 1.5e-<br>105 | (Y1025<br>2)<br>pantoa<br>te--<br>beta-<br>alanin<br>e<br>ligase<br>[Lotus<br>japoni<br>cus]                                      |
| 162984 | ATU024<br>924 | ATL8C5<br>756:24<br>89..6         | nap |  |  |  |  |  | ATL8C5<br>756:23<br>57..6         | 0.78 | g33778<br>33,<br>g28646<br>21 | 100,<br>38 | 1691,<br>318 |              | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to  |



|        |               |                                  |     |  |  |  |  |                                  |               |              |     |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|---------------|--------------|-----|------|--------------|---|
| 162986 | ATU024<br>926 | ATL8C2<br>2365:1<br>13..10<br>60 | nap |  |  |  |  | ATL8C2<br>2365:1<br>40..10<br>60 | 0.78          | g32528<br>10 | 100 | 982  | 7.9e-<br>90  | e-like<br>protei<br>n<br>[Vicia<br>fabal]<br>(AC004<br>705)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162987 | ATU024<br>927 | ATL8C4<br>491:50<br>2..311<br>3  | nap |  |  |  |  | ATL8C4<br>491:51<br>2..311<br>3  | 0.78          | g44552<br>32 | 100 | 1668 | 3.5e-<br>167 | (AL035<br>523)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162988 | ATU024<br>928 | ATL8C9<br>632:13<br>1..168<br>8  | nap |  |  |  |  | ATL8C9<br>632:13<br>1..168<br>8  | 0.78          | g43097<br>03 | 100 | 991  | 5.1e-<br>68  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 162989 | ATU024<br>929 | ATL8C2<br>3848:5<br>097..8       | nap |  |  |  |  | ATL8C2<br>3848:3<br>651..8       | 0.78,<br>0.90 | g40380<br>56 | 100 | 3452 | 0.0          | (AC005<br>897)<br>putati  |

|        |               |                                       |     |  |  |  |   |      |              |     |      |              |   |
|--------|---------------|---------------------------------------|-----|--|--|--|---|------|--------------|-----|------|--------------|---|
| 162990 | ATU024<br>930 | 7<br>ATL8C3<br>4015:2<br>15..54<br>47 | nap |  |  |  | 7,<br>ATL8C2<br>3848:4<br>974..4<br>365 | 0.77 | g40380<br>66 | 100 | 124  | 0.0079       | ve<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               | ATL8C3<br>4015:2<br>15..54<br>47      | nap |  |  |  | ATL8C3<br>4015:2<br>15..44<br>52        | 0.77 | g40380<br>66 | 100 | 124  | 0.0079       | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 162991 | ATU024<br>931 | ATL8C1<br>2262:1<br>743..5<br>50      | nap |  |  |  | ATL8C1<br>2262:1<br>743..5<br>50        | 0.77 | g43357<br>41 | 100 | 1182 | 1.0e-<br>90  | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162992 | ATU024<br>932 | ATL8C3<br>9202:4<br>489..1<br>780     | nap |  |  |  | ATL8C3<br>9202:4<br>489..2<br>245       | 0.77 | g42630<br>63 | 100 | 1947 | 9.6e-<br>167 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |



|        |               |                                   |     |  |  |  |                                   |      |              |     |     |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|-----|-----|--------------|---|
| 162993 | ATU024<br>933 | ATL8C1<br>7626:3<br>669..4<br>387 | nap |  |  |  | ATL8C1<br>7626:3<br>669..4<br>387 | 0.77 | g33722<br>33 | 100 | 409 | 6.2e-<br>39  | (AF019<br>248)<br>RNA<br>polyme<br>rase<br>I, II<br>and<br>III<br>24.3<br>kDa<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162994 | ATU024<br>934 | ATL8C1<br>3124:6<br>330..4<br>840 | nap |  |  |  | ATL8C1<br>3124:6<br>104..4<br>958 | 0.77 | g16286<br>22 | 100 | 963 | 9.2e-<br>103 | (U7263<br>1)<br>flavon<br>ol<br>syntha<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 162995 | ATU024<br>935 | ATL8C1<br>7384:1<br>063..8<br>9   | nap |  |  |  | ATL8C1<br>7384:1<br>063..2<br>49  | 0.77 | g30804<br>50 | 100 | 510 | 1.3e-<br>54  | (AL022<br>605)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162996 | ATU024<br>936 | ATL8C3<br>2878:6<br>024..4<br>303 | nap |  |  |  | ATL8C3<br>2878:6<br>024..4<br>303 | 0.77 | g17031<br>47 | 100 | 348 | 1.8e-<br>38  | ACTIN,<br>ALPHA<br>ANOMAL<br>OUS  |

|        |               |                                  |     |  |  |  |  |                                  |      |  |                               |            |               |   |
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| 162997 | ATU024<br>937 | ATL8C9<br>258:42<br>69..68<br>1  | nap |  |  |  |  | ATL8C9<br>258:42<br>69..68<br>1  | 0.77 |  | g38106<br>01,<br>g38057<br>69 | 100,<br>87 | 1263,<br>2293 | [Fugu<br>rubrip<br>es]<br>(AC005<br>398)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>693)<br>putati<br>ve<br>mudR-<br>like<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 162998 | ATU024<br>938 | ATL8C1<br>0295:3<br>35..21<br>44 | nap |  |  |  |  | ATL8C1<br>0295:3<br>35..20<br>92 | 0.77 |  | g40380<br>66                  | 100        | 729           | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 162999 | ATU024<br>939 | ATL8C3<br>2392:2<br>603..3<br>15 | nap |  |  |  |  | ATL8C3<br>2392:2<br>004..3<br>15 | 0.77 |  | g48369<br>29                  | 100        | 1732          | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n   |



|        |               |                                   |     |  |  |  |  |                                   |      |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
| 163004 | ATU024<br>944 | ATL8C3<br>9936:9<br>74..34        | nap |  |  |  |  | ATL8C3<br>9936:7<br>54..61        | 0.77 | g40380<br>53 | 100 | 1055 | 2.2e-<br>110 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163005 | ATU024<br>945 | ATL8C3<br>8620:9<br>28..11<br>9   | nap |  |  |  |  | ATL8C3<br>8620:9<br>28..18<br>2   | 0.77 | g30471<br>13 | 100 | 511  | 2.7e-<br>59  | (AF058<br>919)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 163006 | ATU024<br>946 | ATL8C2<br>1244:2<br>549..3<br>536 | nap |  |  |  |  | ATL8C2<br>1244:3<br>064..3<br>536 | 0.77 | g43097<br>03 | 100 | 535  | 6.3e-<br>44  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 163007 | ATU024<br>947 | ATL8C2<br>9547:2                  | nap |  |  |  |  | ATL8C2<br>9547:2                  | 0.77 | g45444<br>60 | 100 | 1014 | 2.7e-<br>71  | (AC006<br>592)   |

|        |               |                                  |     |  |  |  |                                   |      |                               |            |              |                              |  |
|--------|---------------|----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|------------|--------------|------------------------------|--|
| 163008 | ATU024<br>948 | ATL8C6<br>61:962<br>0..121<br>50 | nap |  |  |  | ATL8C6<br>61:962<br>0..120<br>39  | 0.76 | g42638<br>30                  | 100        | 2488         | 1.4e-<br>223                 | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163009 | ATU024<br>949 | ATL8C3<br>5052:3<br>41..36<br>72 | nap |  |  |  | ATL8C3<br>5052:2<br>256..3<br>044 | 0.76 | g36953<br>97,<br>g44067<br>92 | 100,<br>75 | 1430,<br>941 | 1.0e-<br>125,<br>2.8e-<br>88 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>304)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas |



|        |               |                                   |     |  |  |  |  |  |                                   |      |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
| 163012 | ATU024<br>952 | ATL8C2<br>2370:1<br>451..4<br>230 | nap |  |  |  |  |  | ATL8C2<br>2370:1<br>451..4<br>208 | 0.76 | g23427<br>33 | 100 | 1506 | 8.4e-<br>133 | agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na]         |
|        |               |                                   |     |  |  |  |  |  |                                   |      |              |     |      |              | (AC002<br>341)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 163013 | ATU024<br>953 | ATL8C1<br>1166:6<br>559..1<br>66  | nap |  |  |  |  |  | ATL8C1<br>1166:6<br>559..1<br>66  | 0.76 | g31933<br>21 | 100 | 1982 | 2.1e-<br>186 | (AF069<br>299)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                   |     |  |  |  |  |  |                                   |      |              |     |      |              | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 163014 | ATU024<br>954 | ATL8C1<br>4446:2<br>356..9<br>65  | nap |  |  |  |  |  | ATL8C1<br>4446:2<br>356..1<br>149 | 0.76 | g40380<br>66 | 100 | 668  | 1.7e-<br>24  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |

|        |               |                                   |     |  |  |  |                                   |      |              |     |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|---|
| 163015 | ATU024<br>955 | ATL8C4<br>5140:3<br>078..9<br>87  | nap |  |  |  | ATL8C4<br>5140:3<br>078..9<br>87  | 0.75 | g43098<br>68 | 100 | 707  | 3.4e-<br>68  | na]<br>(AC006<br>527)<br>putati<br>ve<br>retrot<br>ranspo<br>son-<br>like<br>orf<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163016 | ATU024<br>956 | ATL8C4<br>9260:2<br>480..9<br>56  | nap |  |  |  | ATL8C4<br>9260:2<br>480..9<br>56  | 0.75 | g31641<br>36 | 100 | 1996 | 2.3e-<br>154 | (D7860<br>3)<br>cytoch<br>rome<br>P450<br>monoox<br>ygenas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 163017 | ATU024<br>957 | ATL8C4<br>0590:3<br>823..1<br>892 | nap |  |  |  | ATL8C4<br>0590:3<br>823..1<br>932 | 0.75 | g47739<br>18 | 100 | 1968 | 1.9e-<br>148 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 163018 | ATU024<br>958 | ATL8C7<br>105:34<br>8..238        | nap |  |  |  | ATL8C7<br>105:63<br>6..238        | 0.75 | g43253<br>48 | 100 | 1891 | 4.8e-<br>149 | (AF128<br>394)<br>contai  |



|        |               |   |                            |     |  |  |  |  |  |                                  |      |  |  |  |  |                               |            |             |                             |   |
|--------|---------------|---|----------------------------|-----|--|--|--|--|--|----------------------------------|------|--|--|--|--|-------------------------------|------------|-------------|-----------------------------|---|
| 163019 | ATU024<br>959 | 2 | ATL8C1<br>3514:2<br>145..1 | nap |  |  |  |  |  | ATL8C1<br>3514:1<br>624..5<br>12 | 0.75 |  |  |  |  | g47551<br>96,<br>g45393<br>69 | 100,<br>51 | 529,<br>460 | 7.9e-<br>52,<br>1.9e-<br>41 | ns<br>similarity<br>to<br>phosphate<br>transporters<br>[Arabidopsis<br>thaliana]  |
| 163020 | ATU024<br>960 | 2 | ATL8C4<br>6235:8           | nap |  |  |  |  |  | ATL8C4<br>6235:8                 | 0.75 |  |  |  |  | g39414<br>72                  | 100        | 274         | 2.6e-<br>28                 | (AC007<br>018)<br>similarity<br>to<br>the<br>GDSL<br>family<br>of<br>lipolytic<br>enzymes<br>[Arabidopsis<br>thaliana];<br>(AL049<br>525)<br>putative<br>protein<br>[Arabidopsis<br>thaliana] |
|        |               |   |                            |     |  |  |  |  |  |                                  |      |  |  |  |  |                               |            |             |                             | (AF062<br>890)  |





|        |               |                                  |     |  |  |  |  |  |               |  |                |                      |   |   |
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| 163026 | ATU024<br>966 | ATL8C4<br>8330:5<br>2..265<br>3  | nap |  |  |  |  | ATL8C4<br>8330:1<br>23..19<br>71,<br>ATL8C4<br>8330:2<br>599..2<br>346 | 0.75,<br>0.93 | g48951<br>88                                   | 100            | 1145                 | 3.3e-<br>104                                | (Pfam:<br>PF0007<br>8)<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC007<br>661)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163027 | ATU024<br>967 | ATL8C1<br>030:45<br>95..17<br>59 | nap |  |  |  |  | ATL8C1<br>030:45<br>51..27<br>49                                       | 0.74          | g40380<br>66,<br>g43888<br>25,<br>g43887<br>24 | 100,<br>67, 41 | 431,<br>1210,<br>110 | 3.2e-<br>21,<br>4.5e-<br>87,<br>2.1e-<br>09 | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC006<br>528)<br>putati<br>ve pol<br>ypr<br>otei<br>n with<br>revers<br>e<br>transc<br>riptas<br>e<br>domain |



|        |               |                                  |     |  |  |  |  |                                  |      |              |     |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|-----|------|--------------|---|
| 163029 | ATU024<br>969 | ATL8C1<br>6663:1<br>754..1<br>57 | nap |  |  |  |  | ATL8C1<br>6663:1<br>142..1<br>57 | 0.74 | g22136<br>26 | 100 | 765  | 1.1e-<br>77  | e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 163030 | ATU024<br>970 | ATL8C2<br>2345:2<br>238..5<br>84 | nap |  |  |  |  | ATL8C2<br>2345:2<br>238..5<br>84 | 0.74 | g44067<br>59 | 100 | 256  | 3.7e-<br>19  | (AC006<br>836)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 163031 | ATU024<br>971 | ATL8C4<br>9901:8<br>87..43<br>56 | nap |  |  |  |  | ATL8C4<br>9901:8<br>87..43<br>50 | 0.74 | g43887<br>19 | 100 | 2053 | 1.8e-<br>165 | (AC006<br>413)<br>putati<br>ve<br>myosin<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163032 | ATU024        | ATL8C4                           | nap |  |  |  |  | ATL8C4                           | 0.74 | g22448       | 100 | 1883 | 1.1e-        | (Z9733)   |

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|        | 972           | 158:20<br>05...51<br>5           |     |  |  |  | 158:19<br>31...51<br>5           |      | 95                            |            | 180          | 8)<br>simila<br>r to<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>nal |   |
| 163033 | ATU024<br>973 | ATL8C7<br>663:52<br>71...42<br>4 | nap |  |  |  | ATL8C7<br>663:49<br>20...42<br>4 | 0.74 | g29824<br>38,<br>g48369<br>29 | 100,<br>49 | 883,<br>1281 | 7.4e-<br>74,<br>1.8e-<br>115  | (AL022<br>224)<br>cadine<br>ne<br>syntha<br>se<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163034 | ATU024<br>974 | ATL8C4<br>8443:8<br>5...145<br>8 | nap |  |  |  | ATL8C4<br>8443:8<br>5...140<br>9 | 0.74 | g44328<br>17                  | 100        | 1006         | 4.4e-<br>96   | (AC006<br>593)<br>unknow<br>n<br>protei<br>n<br>[Arabi  |

|        |               |                            |     |  |  |  |  |  |                                  |      |                               |            |               |                               |   |
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| 163035 | ATU024<br>975 | ATL8C4<br>2447:1<br>..2779 | nap |  |  |  |  |  | ATL8C4<br>2447:3<br>41..12<br>40 | 0.74 | 948952<br>24,<br>g44159<br>31 | 100,<br>41 | 1322,<br>117  | 7.1e-<br>101,<br>3.4e-<br>13  | dopsis<br>thalia<br>nal<br>(AC007<br>660)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>418)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163036 | ATU024<br>976 | ATL8C3<br>1598:1<br>..5341 | nap |  |  |  |  |  | ATL8C3<br>1598:1<br>19..53<br>35 | 0.73 | g30212<br>76,<br>g30212<br>77 | 100,<br>69 | 1407,<br>3056 | 5.6e-<br>107,<br>1.5e-<br>281 | (AL022<br>347)<br>serine<br>/threo<br>nine<br>kinase<br>- like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AL022   |



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| 163037 | ATU024<br>977 | ATL8C4<br>040:16<br>34..87      | nap |  |  |  |  |  | 0.73 | g47551<br>98 | 100 | 762  | 1.9e-<br>64  | (AC007<br>018)<br>putative<br>zinc<br>finger<br>protein<br>[Arabi<br>dopsis<br>thaliana] |
| 163038 | ATU024<br>978 | ATL8C5<br>966:89<br>8..206<br>7 | nap |  |  |  |  |  | 0.73 | g33784<br>91 | 100 | 559  |              | (AJ007<br>578)<br>pRIB5<br>protein<br>[Ribes<br>nigrum]                                  |
| 163039 | ATU024<br>979 | ATL8C3<br>3492:1<br>835..6<br>3 | nap |  |  |  |  |  | 0.73 | g47739<br>18 | 100 | 1822 | 1.3e-<br>127 | (AF147<br>259)<br>No<br>definition<br>line<br>found<br>[Arabi<br>dopsis]                 |

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| 163040 | ATU024<br>980 | ATL8C1<br>2999:2<br>1..301<br>0   | nap |  |  |  | ATL8C1<br>2999:2<br>1..298<br>1   | 0.73 | g45859<br>33,<br>g45811<br>64 | 100,<br>46 | 769,<br>1284 | 1.8e-<br>60,<br>9.8e-<br>106 | thalia<br>nal<br>(AC007<br>211)<br>hypothesis<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>220)<br>putative<br>polyprotein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163041 | ATU024<br>981 | ATL8C4<br>2012:1<br>329..4<br>667 | nap |  |  |  | ATL8C4<br>2012:1<br>658..4<br>481 | 0.73 | g43887<br>19                  | 100        | 2028         | 7.4e-<br>178                 | (AC006<br>413)<br>putative<br>myosin-<br>like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163042 | ATU024<br>982 | ATL8C2<br>0786:4<br>46..15<br>83  | nap |  |  |  | ATL8C2<br>0786:4<br>46..15<br>83  | 0.73 | g22528<br>27                  | 100        | 1366         | 4.4e-<br>134                 | (AF013<br>293)<br>No<br>definition<br>line  |

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| 163043 | ATU024<br>983 | ATL8C1<br>3004:6<br>053..7<br>227 | nap |  |  |  |  |  | ATL8C1<br>3004:6<br>053..7<br>181 | 0.73 |  | g37023<br>32 | 100  | 552   | 7.9e-<br>37 | found<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC005<br>397)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163044 | ATU024<br>984 | ATL8C2<br>4259:7<br>6..129<br>2   | nap |  |  |  |  |  | ATL8C2<br>4259:7<br>6..129<br>2   | 0.73 |  | g30466<br>93 | 100  | 711   | 3.4e-<br>65 | (AL022<br>140)<br>recept<br>or<br>like<br>protei<br>n<br>(fragm<br>ent)<br>[Arabi<br>dopsis<br>thalia<br>nal]                     |
| 163045 | ATU024<br>985 | ATL8C1<br>0319:1<br>786..3<br>855 | nap |  |  |  |  |  | ATL8C1<br>0319:1<br>786..3<br>855 | 0.73 |  | g22709<br>94 | 100  | 684   |             | (AF004<br>809)<br>Ca+2-<br>bindin<br>g EF<br>hand<br>protei<br>n<br>[Glyci<br>ne<br>max]  |
| 163046 | ATU024<br>nap | ATL8C4                            | nap |  |  |  |  |  | ATL8C4                            | 0.72 |  | g42622       | 100, | 1413, | 5.1e-       | (AC006  |

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|--------|---------------|----------------------------------|-----|--|--|--|-------------------------|--|-------------------------------|------------|--------------|------------------------------|--|
| 163047 | ATU024<br>987 | ATL8C8<br>046:50<br>97..78<br>88 | nap |  |  |  | 1946:2<br>965:..7<br>32 |  | 13,<br>g45586<br>82           | 99         | 248          | 134,<br>1.6e-<br>21          | 161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]         |
|        |               |                                  |     |  |  |  |                         |  | g36953<br>97,<br>g36953<br>95 | 100,<br>62 | 2112,<br>646 | 3.8e-<br>193,<br>2.0e-<br>48 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |     |      |              |   |
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| 163048 | ATU024<br>988 | ATL8C5<br>436:46<br>4..174<br>2   | nap |  |  |  |  |  | ATL8C5<br>436:58<br>1..174<br>1   | 0.72 | g45126<br>31 | 100 | 1289 | 2.1e-<br>134 | riptase<br>(Pfam:<br>PF00078<br>rvt,<br>E=4.3e-08)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163049 | ATU024<br>989 | ATL8C1<br>2203:1<br>905..3<br>558 | nap |  |  |  |  |  | ATL8C1<br>2203:1<br>914..3<br>539 | 0.72 | g26739<br>15 | 100 | 1004 | 1.7e-<br>98  | (AC002<br>561)<br>putative<br>cytochrome<br>P-450<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163050 | ATU024<br>990 | ATL8C3<br>476:32<br>55..2         | nap |  |  |  |  |  | ATL8C3<br>476:30<br>98..85<br>5   | 0.72 | g22450<br>81 | 100 | 2171 | 3.3e-<br>195 | (Z9734<br>3)<br>myosin<br>II<br>heavy<br>chain<br>homolo                                |

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| 163051 | ATU024<br>991 | ATL8C3<br>686:69<br>69..13       | nap |  |  |  |  |  | ATL8C3<br>686:69<br>69..13       | 0.72 | g46462<br>27                  | 100         | 3548        | 0.0                         | g<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>235)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163052 | ATU024<br>992 | ATL8C1<br>6410:1<br>550..4<br>5  | nap |  |  |  |  |  | ATL8C1<br>6410:1<br>550..2<br>33 | 0.72 | g27393<br>73,<br>g62966<br>9  | 100,<br>100 | 883,<br>696 | 4.6e-<br>85,<br>9.4e-<br>67 | (AC002<br>505)<br>putati<br>ve<br>flavon<br>ol 3-<br>o-<br>glucos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na];<br>hypoth<br>etical<br>protei<br>n -<br>tomato<br>[] |
| 163053 | ATU024<br>993 | ATL8C2<br>0686:2<br>326..2<br>79 | nap |  |  |  |  |  | ATL8C2<br>0686:8<br>62..30<br>5  | 0.71 | g42621<br>75,<br>g44328<br>66 | 100,<br>39  | 812,<br>664 | 4.2e-<br>78,<br>1.5e-<br>50 | (AC005<br>508)<br>12894<br>[Arabi   |

|        |               |                                    |     |  |  |  |  |  |                                    |      |              |     |      |              |  |
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| 163054 | ATU024<br>994 | ATL8C2<br>4532:2<br>693..4<br>52   | nap |  |  |  |  |  | ATL8C2<br>4532:2<br>693..5<br>23   | 0.71 | 946782<br>01 | 100 | 1751 | 5.9e-<br>172 | dopsis<br>thalia<br>nal;<br>(AC006<br>300)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163055 | ATU024<br>995 | ATL8C1<br>4522:1<br>1915..<br>7454 | nap |  |  |  |  |  | ATL8C1<br>4522:1<br>0994..<br>9451 | 0.71 | 925650<br>07 | 100 | 4121 | 0.0          | (AC002<br>983)<br>predic<br>ted<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 163056 | ATU024<br>996 | ATL8C4<br>6050:3                   | nap |  |  |  |  |  | ATL8C4<br>6050:3                   | 0.71 | 929613<br>77 | 100 | 3319 | 1.3e-<br>310 | (AL022<br>141)   |





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| 163060 | ATU025<br>000 | ATL8C1<br>0310:1<br>110..5<br>242 | nap |  |  |  |  | ATL8C1<br>0310:1<br>110..5<br>242 | 0.71 | g43253<br>77 | 100 | 1678 |              | iana<br>tabacu<br>m]  |
| 163061 | ATU025<br>001 | ATL8C1<br>2392:2<br>290..2<br>17  | nap |  |  |  |  | ATL8C1<br>2392:2<br>212..2<br>17  | 0.71 | g34027<br>18 | 100 | 1584 | 2.1e-<br>142 | (AF128<br>396)<br>simila<br>r to<br>maize<br>transp<br>oson<br>MuDR-<br>like<br>protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163062 | ATU025<br>002 | ATL8C2<br>0899:1<br>98..27<br>05  | nap |  |  |  |  | ATL8C2<br>0899:1<br>98..26<br>67  | 0.71 | g44327<br>95 | 100 | 824  | 1.3e-<br>38  | (AC006<br>437)<br>putati<br>ve<br>protei<br>n 2 of<br>of the<br>En/Spm<br>transp<br>osable<br>elemen<br>t                         |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |     |      |              |   |
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| 163063 | ATU025<br>003 | ATL8C8<br>667:52<br>84..25<br>32 | nap |  |  |  |  |  | ATL8C8<br>667:52<br>84..25<br>32 | 0.71 | g42622<br>10 | 100 | 1766 | 9.6e-<br>177 | (AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163064 | ATU025<br>004 | ATL8C1<br>8801:1<br>633..3<br>5  | nap |  |  |  |  |  | ATL8C1<br>8801:1<br>380..3<br>5  | 0.71 | g43097<br>56 | 100 | 799  | 7.9e-<br>100 | (AC006<br>217)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163065 | ATU025<br>005 | ATL8C2<br>9:1238<br>..2556       | nap |  |  |  |  |  | ATL8C2<br>9:1255<br>..2556       | 0.71 | g45389<br>68 | 100 | 1283 | 8.3e-<br>131 | (AL049<br>488)<br>putati<br>ve<br>protei<br>n<br>kinase<br>[Arabi   |



|        |               |                                   |     |  |  |  |                                   |      |                               |            |               |                      |  |
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| 163068 | ATU025<br>008 | ATL8C2<br>0579:1<br>347..6<br>998 | nap |  |  |  | ATL8C2<br>0579:1<br>347..6<br>621 | 0.70 | g49143<br>61,<br>g37383<br>37 | 100,<br>34 | 4633,<br>1875 | 0.0,<br>1.6e-<br>192 | thalia<br>nal<br>(AC007<br>289)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC005<br>170)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 163069 | ATU025<br>009 | ATL8C8<br>999:59<br>79..20<br>15  | nap |  |  |  | ATL8C8<br>999:59<br>79..20<br>15  | 0.70 | g42638<br>30                  | 100        | 2813          | 1.7e-<br>215         | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal   |
| 163070 | ATU025<br>010 | ATL8C3<br>5642:4                  | nap |  |  |  | ATL8C3<br>5642:4                  | 0.70 | g48368<br>97                  | 100        | 682           | 1.5e-<br>57          | (AC007<br>369)   |



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| 163074 | ATU025<br>014 | ATL8C1<br>7962:3<br>004..5<br>9   | nap |  |  |  | ATL8C1<br>7962:3<br>004..3<br>29  | 0.70 | g45824<br>58                  | 100         | 1051          | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163075 | ATU025<br>015 | ATL8C1<br>3906:1<br>862..2<br>533 | nap |  |  |  | ATL8C1<br>3906:2<br>035..2<br>352 | 0.70 | g40380<br>66                  | 100         | 670           | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163076 | ATU025<br>016 | ATL8C3<br>9536:3<br>84..13<br>59  | nap |  |  |  | ATL8C3<br>9536:4<br>52..13<br>59  | 0.70 | g42637<br>69                  | 100         | 707           | (AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163077 | ATU025<br>017 | ATL8C1<br>4458:2<br>573..6<br>481 | nap |  |  |  | ATL8C1<br>4458:2<br>573..6<br>481 | 0.70 | g43253<br>51,<br>g43097<br>03 | 100,<br>100 | 4071,<br>1189 | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr  |



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| 163080 | ATU025<br>020 | ATL8C4<br>7105:4<br>560..1      | nap |  |  |  |  | 9456:7<br>687..8<br>285         | 0.70          | g33273<br>93,<br>g37460<br>69 | 100,<br>68 | 698,<br>2943 | 1.0e-<br>65,<br>8.1e-<br>302 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC004<br>483)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>311)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163081 | ATU025<br>021 | ATL8C6<br>849:53<br>0..181<br>5 | nap |  |  |  |  | ATL8C6<br>849:78<br>6..160<br>1 | 0.70          | g42622<br>13                  | 100        | 1275         | 2.6e-<br>123                 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163082 | ATU025<br>022 | ATL8C2<br>937:1.                | nap |  |  |  |  | ATL8C2<br>937:83                | 0.70,<br>0.54 | g40380<br>66,                 | 100,<br>44 | 575,<br>1788 | 3.8e-<br>32,                 | (AC005<br>897)   |







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| 163085 | ATU025<br>025 | ATL8C2<br>8213:4<br>41..25<br>20 | nap |  |  |  |  |  | ATL8C2<br>8213:1<br>461..2<br>359 | 0.69 |  | g30471<br>22,<br>g30471<br>16 | 100,<br>44 | 1559,<br>154 | 3.0e-<br>105,<br>1.2e-<br>09 | to<br>Petuni<br>a<br>PTTA'<br>(GB:AF<br>009516<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163086 | ATU025<br>026 | ATL8C1<br>4441:5<br>7..339<br>0  | nap |  |  |  |  |  | ATL8C1<br>4441:5<br>7..339<br>0   | 0.69 |  | g45672<br>96                  | 100        | 2179         | 7.7e-<br>202                 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>element                             |

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| 163087 | ATU025<br>027 | ATL8C2<br>3352:6<br>66..33<br>14 | nap |  |  |  |  |  | 0.69 | ATL8C2<br>3352:6<br>66..33<br>14 | g44067<br>94 | 100 | 1934 | 3.5e-<br>161 | ORF1<br>protein<br>[Arabidopsis<br>thaliana]   |
| 163088 | ATU025<br>028 | ATL8C3<br>5552:3<br>57..11<br>13 | nap |  |  |  |  |  | 0.69 | ATL8C3<br>5552:4<br>03..10<br>69 | g44172<br>91 | 100 | 374  | 9.3e-<br>40  | (AC007<br>019)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana]                               |
| 163089 | ATU025<br>029 | ATL8C3<br>5320:2<br>972..5<br>06 | nap |  |  |  |  |  | 0.69 | ATL8C3<br>5320:2<br>963..5<br>06 | g21601<br>44 | 100 | 794  | 2.3e-<br>92  | (AC000<br>375)<br>Strong<br>similarity<br>to<br>Arabidopsis<br>oligopeptide<br>transporter<br>(gb X7 |

|        |               |                                  |     |  |  |  |  |  |                                  |               |  |              |     |      |              |   |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|---------------|--|--------------|-----|------|--------------|---|---|
| 163090 | ATU025<br>030 | ATL8C1<br>827:77<br>3..93        | nap |  |  |  |  |  | ATL8C1<br>827:77<br>3..165       | 0.69          |  | g42622<br>41 | 100 | 280  | 6.5e-<br>29  | (AC006<br>200)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                     | 7503).<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163091 | ATU025<br>031 | ATL8C3<br>2565:2<br>556..1<br>36 | nap |  |  |  |  |  | ATL8C3<br>2565:2<br>556..1<br>36 | 0.69          |  | g37023<br>19 | 100 | 503  | 2.1e-<br>26  | (AC005<br>397)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                            |   |
| 163092 | ATU025<br>032 | ATL8C4<br>9749:4<br>59..19<br>98 | nap |  |  |  |  |  | ATL8C4<br>9749:4<br>59..19<br>98 | 0.69          |  | g41917<br>74 | 100 | 1598 | 1.8e-<br>168 | (AC005<br>917)<br>putati<br>ve<br>beta-<br>1,3-<br>endogl<br>ucanas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 163093 | ATU025<br>033 | ATL8C3<br>4952:3                 | nap |  |  |  |  |  | ATL8C3<br>4952:1                 | 0.69,<br>0.93 |  | g33784<br>91 | 100 | 445  | 1.3e-<br>46  | (AJ007<br>578)  |   |

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| 163094 | ATU025<br>034 | 189..3<br>10                       | nap |  |  |  |  |  | 523..3<br>10,<br>ATL8C3<br>4952:3<br>189..1<br>925 | 0.69 | g33778<br>53 | 100 | 1282 | 1.9e-<br>121 | PRIB5<br>protei<br>n<br>[Ribes<br>nigrum<br>]   |
|        |               | ATL8C1<br>269:31<br>37..39<br>3    |     |  |  |  |  |  | ATL8C1<br>269:31<br>37..39<br>3                    |      |              |     |      |              | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 163095 | ATU025<br>035 | ATL8C3<br>682:80<br>70..74<br>1    | nap |  |  |  |  |  | ATL8C3<br>682:79<br>04..74<br>1                    | 0.69 | g37775<br>27 | 100 | 3222 | 0.0          | (AF053<br>008)<br>gag-<br>pol<br>polypr<br>otein<br>[Glyci<br>ne<br>max]  |
| 163096 | ATU025<br>036 | ATL8C1<br>3612:1<br>1351..<br>4253 | nap |  |  |  |  |  | ATL8C1<br>3612:1<br>1053..<br>4253                 | 0.69 | g43253<br>51 | 100 | 3589 | 0.0          | (AFI28<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n |

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| 163097 | ATU025<br>037 | ATL8C3<br>4812:1<br>475..4<br>07  | nap |  |  |  |  |  | ATL8C3<br>4812:1<br>307..4<br>07  | 0.69 | g46782<br>16 | 100 | 883  | 3.6e-<br>96  | (GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 163098 | ATU025<br>038 | ATL8C1<br>730:16<br>49..37<br>54  | nap |  |  |  |  |  | ATL8C1<br>730:17<br>02..37<br>54  | 0.68 | g42630<br>63 | 100 | 1798 | 9.5e-<br>182 | (AC005<br>142)<br>hypoth.<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163099 | ATU025<br>039 | ATL8C5<br>413:23<br>..2762        | nap |  |  |  |  |  | ATL8C5<br>413:23<br>..2762        | 0.68 | g38106<br>01 | 100 | 1159 | 4.7e-<br>93  | (AC005<br>398)<br>hypoth.<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163100 | ATU025<br>040 | ATL8C2<br>9600:2<br>363..1<br>343 | nap |  |  |  |  |  | ATL8C2<br>9600:2<br>363..1<br>343 | 0.68 | g47139<br>50 | 100 | 1182 | 7.4e-<br>114 | (AC007<br>293)<br>hypoth.<br>etical   |

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| 163101 | ATU025<br>041 | ATL8C4<br>3899:3<br>46..14<br>90 | nap |  |  |  |  | ATL8C4<br>3899:5<br>61..14<br>90 | 0.68 | g40068<br>21                  | 100        | 942          |                     | protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163102 | ATU025<br>042 | ATL8C3<br>2769:4<br>02..13<br>80 | nap |  |  |  |  | ATL8C3<br>2769:7<br>13..13<br>80 | 0.68 | g45444<br>60                  | 100        | 1074         | 3.8e-<br>99         | (AC006<br>592)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163103 | ATU025<br>043 | ATL8C2<br>0809:3<br>947..1<br>41 | nap |  |  |  |  | ATL8C2<br>0809:3<br>890..1<br>83 | 0.68 | g32427<br>13,<br>g32427<br>12 | 100,<br>99 | 3760,<br>568 | 0.0,<br>8.4e-<br>47 | (AC003<br>040)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC003           |



|        |               |                                   |     |  |  |  |  |  |                                   |      |              |     |      |              |   |
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| 163104 | ATU025<br>044 | ATL8C1<br>3183:7<br>56..40<br>76  | nap |  |  |  |  |  | ATL8C1<br>3183:8<br>79..40<br>76  | 0.68 | g22135<br>94 | 100 | 1461 | 9.0e-<br>127 | 040)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 163105 | ATU025<br>045 | ATL8C6<br>61:866<br>5..197<br>7   | nap |  |  |  |  |  | ATL8C6<br>61:866<br>5..453<br>2   | 0.68 | g42638<br>31 | 100 | 6524 | 0.0          | (AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163106 | ATU025<br>046 | ATL8C1<br>3622:3<br>173..5<br>569 | nap |  |  |  |  |  | ATL8C1<br>3622:3<br>329..5<br>319 | 0.68 | g42630<br>63 | 100 | 2636 | 2.8e-<br>214 | (AC005<br>142)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                          |

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| 163107 | ATU025<br>047 | ATL8C3<br>5987:2<br>523..1        | nap |  |  | ATL8C3<br>5987:2<br>449..6<br>1   | 0.68 | g38314<br>49,<br>g29110<br>81,<br>g45811<br>24 | 100, 65<br>77, | 173,<br>113,<br>121 | 1.0e-<br>16,<br>4.9e-<br>21,<br>3.0e-<br>06 | (AC005<br>700)<br>hypoth<br>etical<br>protei<br>n, 3',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AL021<br>960)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC005<br>825)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 163108 | ATU025<br>048 | ATL8C2<br>5730:1<br>990..2<br>945 | nap |  |  | ATL8C2<br>5730:1<br>990..2<br>805 | 0.67 | g42206<br>12                                   | 100            | 1485                | 3.3e-<br>153                                | (AB021<br>934)<br>nicoti<br>anamin<br>e<br>syntha<br>se<br>[Arabi  |

|        |               |                                   |     |  |  |  |  |                                   |      |              |     |     |             |   |
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| 163109 | ATU025<br>049 | ATL8C4<br>5314:1<br>143..5<br>9   | nap |  |  |  |  | ATL8C4<br>5314:8<br>62..59        | 0.67 | g45811<br>12 | 100 | 938 | 2.1e-<br>99 | dopsis<br>thalia<br>na]<br>(AC005<br>825)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163110 | ATU025<br>050 | ATL8C1<br>4522:2<br>284..3<br>81  | nap |  |  |  |  | ATL8C1<br>4522:2<br>284..5<br>94  | 0.67 | g33778<br>53 | 100 | 654 | 1.3e-<br>50 | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 163111 | ATU025<br>051 | ATL8C1<br>8504:3<br>375..1<br>401 | nap |  |  |  |  | ATL8C1<br>8504:3<br>375..1<br>401 | 0.67 | g11768<br>14 | 100 | 310 | 6.4e-<br>23 | HYPOTH<br>ETICAL<br>31.3<br>KD<br>PROTEI<br>N IN<br>AGAI-<br>MTR<br>INTERG<br>ENIC<br>REGION<br>(F286)<br>[Esche<br>richia      |

|        |               |                                   |     |  |  |  |                                   |      |                               |            |             |                     |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|------------|-------------|---------------------|---|
| 163112 | ATU025<br>052 | ATL8C4<br>1519:1<br>..1437        | nap |  |  |  | ATL8C4<br>1519:1<br>7..143<br>7   | 0.67 | g23927<br>63                  | 100        | 824         | 3.4e-<br>83         | coli]<br>(AC002<br>534)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163113 | ATU025<br>053 | ATL8C1<br>3982:1<br>..4302        | nap |  |  |  | ATL8C1<br>3982:2<br>02..28<br>88  | 0.67 | g45811<br>11,<br>g26186<br>92 | 100,<br>30 | 4217,<br>98 | 0.0,<br>1.9e-<br>05 | (AC005<br>825)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163114 | ATU025<br>054 | ATL8C1<br>6647:5<br>364..3<br>535 | nap |  |  |  | ATL8C1<br>6647:5<br>364..3<br>747 | 0.67 | g49143<br>71                  | 100        | 1174        | 3.2e-<br>90         | (AC007<br>584)<br>unknow<br>n   |

|        |               |                                   |     |  |  |  |  |   |               |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|---|---------------|--------------|-----|------|--------------|--|
| 163115 | ATU025<br>055 | ATL8C4<br>1772:2<br>56..27<br>76  | nap |  |  |  |  | ATL8C4<br>1772:2<br>56..20<br>34                                    | 0.67          | g30804<br>20 | 100 | 2024 | 3.2e-<br>193 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163116 | ATU025<br>056 | ATL8C8<br>78:245<br>5..972<br>1   | nap |  |  |  |  | ATL8C8<br>78:245<br>5..709<br>3,<br>ATL8C8<br>78:746<br>6..972<br>1 | 0.67,<br>0.59 | g44328<br>02 | 100 | 3939 | 7.4e-<br>278 | (AL022<br>604)<br>putati<br>ve<br>sugar<br>transp<br>orter<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163117 | ATU025<br>057 | ATL8C4<br>1968:6<br>201..1<br>514 | nap |  |  |  |  | ATL8C4<br>1968:6<br>201..1<br>514                                   | 0.67          | g44067<br>91 | 100 | 813  | 5.6e-<br>62  | (AC006<br>304)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |

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| 163118 | ATU025<br>058 | ATL8C4<br>8593:1<br>128..9<br>3  | nap |  |  |  |  | ATL8C4<br>8593:1<br>128..9<br>4  | 0.67 | g36081<br>28 | 100 | 1183 | 3.2e-<br>94  | thalia<br>nal<br>(AC005<br>314)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163119 | ATU025<br>059 | ATL8C1<br>666:16<br>09..53<br>54 | nap |  |  |  |  | ATL8C1<br>666:19<br>17..53<br>54 | 0.67 | g40637<br>59 | 100 | 2915 | 3.7e-<br>256 | (AC005<br>561)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]                  |
| 163120 | ATU025<br>060 | ATL8C4<br>7150:1<br>686..5<br>00 | nap |  |  |  |  | ATL8C4<br>7150:1<br>686..6<br>53 | 0.67 | g47339<br>60 | 100 | 1331 | 5.8e-<br>119 | (AC007<br>294)<br>putati<br>ve<br>zinc-<br>finger<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163121 | ATU025<br>061 | ATL8C3<br>4037:1<br>28..21<br>50 | nap |  |  |  |  | ATL8C3<br>4037:1<br>28..21<br>50 | 0.66 | g43098<br>68 | 100 | 341  | 1.9e-<br>29  | (AC006<br>527)<br>putati<br>ve<br>retrotr<br>ranspo  |

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| 163122 | ATU025<br>062 | ATL8C3<br>701:13<br>6..162<br>5   | nap |  |  |  |  |  | ATL8C3<br>701:13<br>6..162<br>5  | 0.66 | 933778<br>38 | 100 | 895  | 1.6e-<br>81  | (AF075<br>598)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 163123 | ATU025<br>063 | ATL8C9<br>278:69<br>95..81<br>53  | nap |  |  |  |  |  | ATL8C9<br>278:71<br>84..81<br>52 | 0.66 | 942622<br>13 | 100 | 689  |              | (AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 163124 | ATU025<br>064 | ATL8C2<br>4820:3<br>996..3<br>60. | nap |  |  |  |  |  | ATL8C2<br>4820:3<br>996..3<br>60 | 0.66 | 943253<br>48 | 100 | 2029 | 2.3e-<br>145 | (AF128<br>394)<br>contai<br>ns<br>simila<br>rity<br>to<br>phosph<br>ate<br>transp<br>orters<br>[Arabi |

|        |               |                                   |     |  |  |  |  |  |  |                                   |      |              |     |      |              |  |
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| 163125 | ATU025<br>065 | ATL8C3<br>9873:2<br>552..1<br>99  | nap |  |  |  |  |  |  | ATL8C3<br>9873:2<br>552..1<br>99  | 0.66 | g46462<br>07 | 100 | 1154 | 9.0e-<br>111 | dopsis<br>thalia<br>nal<br>(AC007<br>230)<br>Contai<br>ns<br>simila<br>rity<br>to [1]  |
| 163126 | ATU025<br>066 | ATL8C3<br>3405:2<br>797..1<br>744 | nap |  |  |  |  |  |  | ATL8C3<br>3405:2<br>758..1<br>904 | 0.66 | g33778<br>55 | 100 | 1390 | 1.6e-<br>75  | (AF076<br>274)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>trancr<br>iptase<br>(Pfam:<br>rvt.hm<br>m,<br>score:<br>96.80)<br>and<br>CCHC-<br>type<br>zinc<br>finger<br>s<br>(Pfam:<br>zf-<br>CCHC.h<br>mm,<br>score:<br>14.43)<br>[Arabi<br>dopsis |



|        |               |                                   |     |  |  |  |  |                                   |      |  |              |     |      |              |   |
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| 163127 | ATU025<br>067 | ATL8C4<br>7038:1<br>956..4<br>938 | nap |  |  |  |  | ATL8C4<br>7038:1<br>956..4<br>938 | 0.66 |  | g43253<br>51 | 100 | 4149 | 0.0          | thalia<br>nal<br>(AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163128 | ATU025<br>068 | ATL8C2<br>3951:1<br>694..5<br>60  | nap |  |  |  |  | ATL8C2<br>3951:1<br>694..8<br>45  | 0.66 |  | g35823<br>22 | 100 | 1443 | 1.6e-<br>142 | (AC005<br>496)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163129 | ATU025<br>069 | ATL8C3<br>8072:7<br>60..18<br>67  | nap |  |  |  |  | ATL8C3<br>8072:7<br>66..18<br>40  | 0.65 |  | g45389<br>17 | 100 | 382  | 3.9e-<br>47  | (AL049<br>482)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |

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|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|-------------------------------|------------|--------------|-----------------------------|--|
| 163130 | ATU025<br>070 | ATL8C8<br>27:285<br>1..543      | nap |  |  |  | ATL8C8<br>27:285<br>1..560      | 0.65 | g28275<br>50                  | 100        | 3083         | 9.0e-<br>313                | thalia<br>nal<br>(AL021<br>635)<br>leucin<br>e rich<br>repeat<br>recept<br>or<br>kinase<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163131 | ATU025<br>071 | ATL8C3<br>1479:6<br>9..416<br>3 | nap |  |  |  | ATL8C3<br>1479:8<br>8..410<br>7 | 0.65 | g33778<br>45,<br>g42636<br>58 | 100,<br>32 | 1212,<br>617 | 9.0e-<br>95,<br>3.0e-<br>41 | (AF076<br>274)<br>contai<br>ns<br>simila<br>rity<br>to the<br>basic<br>region<br>plus<br>leucin<br>e<br>zipper<br>trancr<br>iption<br>factor<br>s<br>(Pfam:<br>bZIP.h<br>mm,<br>score:<br>12.77)<br>[Arabi |



|        |               |                                  |     |  |  |  |  |                                 |      |              |     |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|-----|------|-------------|---|
| 163134 | ATU025<br>074 | ATL8C3<br>7719:3<br>05..13<br>09 | nap |  |  |  |  | ATL8C3<br>7719:5<br>16..36<br>9 | 0.65 | 946789<br>26 | 100 | 483  | 8.6e-<br>35 | protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF074<br>021)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163135 | ATU025<br>075 | ATL8C4<br>1007:3<br>85..10<br>41 | nap |  |  |  |  | ATL8C4<br>1007:4<br>81..87<br>6 | 0.65 | 940380<br>66 | 100 | 648  | 1.2e-<br>44 | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163136 | ATU025<br>076 | ATL8C1<br>1171:4                 | nap |  |  |  |  | ATL8C1<br>1171:3                | 0.65 | 943253<br>51 | 100 | 4046 | 0.0         | (AF128<br>394)  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |     |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|-----|------|--------------|---|
| 163137 | ATU025<br>077 | 216..3<br>57                     |     |  |  |  |  | 922..3<br>57                     | 0.65 | 942637<br>68 | 100 | 1338 | 6.5e-<br>128 | similar to<br>Antirrhinum<br>majus (garde-<br>n snapdragon)<br>TNF2 protein<br>(GB:X57297)<br>[Arabidopsis<br>thaliana] |
| 163138 | ATU025<br>078 | ATL8C3<br>300:38<br>21..16<br>93 | nap |  |  |  |  | ATL8C3<br>300:36<br>14..18<br>36 | 0.65 | 938057<br>69 | 100 | 2432 | 6.2e-<br>256 | (AC006218)<br>hypothetical<br>protein [Arabidopsis<br>thaliana]   |
|        |               | ATL8C1<br>6337:2<br>275..1<br>0  | nap |  |  |  |  | ATL8C1<br>6337:2<br>261..1<br>56 | 0.65 |              |     |      |              | (AC005693)<br>putative<br>mudR-like<br>transposon<br>[Arabidopsis<br>thaliana]  |

|        |               |                                    |     |  |  |  |                                    |      |                               |            |               |                               |  |
|--------|---------------|------------------------------------|-----|--|--|--|------------------------------------|------|-------------------------------|------------|---------------|-------------------------------|--|
| 163139 | ATU025<br>079 | ATL8C1<br>9795:6<br>281..4<br>317  | nap |  |  |  | ATL8C1<br>9795:6<br>281..4<br>462  | 0.65 | g45389<br>06                  | 100        | 1176          | 1.1e-<br>114                  | (AL049<br>482)<br>cholin<br>e kinase<br>GmCK2p<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163140 | ATU025<br>080 | ATL8C1<br>2707:9<br>357..1<br>1866 | nap |  |  |  | ATL8C1<br>2707:9<br>357..1<br>1866 | 0.65 | g42622<br>13                  | 100        | 923           | 2.0e-<br>92                   | (AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163141 | ATU025<br>081 | ATL8C2<br>2357:5<br>724..5<br>46   | nap |  |  |  | ATL8C2<br>2357:5<br>724..5<br>64   | 0.65 | g42622<br>10,<br>g40068<br>33 | 100,<br>47 | 1982,<br>1454 | 3.1e-<br>187,<br>7.5e-<br>138 | (AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>970) |

|        |               |                                  |     |  |  |  |  |  |                                  |      |                               |            |              |                     |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|-------------------------------|------------|--------------|---------------------|---|
| 163142 | ATU025<br>082 | ATL8C1<br>3927:7<br>93..31<br>35 | nap |  |  |  |  |  | ATL8C1<br>3927:7<br>93..30<br>81 | 0.65 | 934618<br>20                  | 100        | 206          | 2.7e-<br>17         | (AC004<br>138)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 163143 | ATU025<br>083 | ATL8C9<br>627:68<br>97..16<br>6  | nap |  |  |  |  |  | ATL8C9<br>627:68<br>97..16<br>6  | 0.65 | 940380<br>56                  | 100        | 3727         | 0.0                 | (AC005<br>897)<br>putative<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163144 | ATU025<br>084 | ATL8C1<br>3567:5<br>885..1       | nap |  |  |  |  |  | ATL8C1<br>3567:5<br>885..4<br>30 | 0.65 | 943253<br>51,<br>947339<br>96 | 100,<br>42 | 3733,<br>800 | 0.0,<br>7.6e-<br>72 | (AF128<br>394)<br>similar<br>to<br>Antirr<br>hinum<br>majus<br>(garde<br>n        |

|        |               |                                  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| 163145 | ATU025<br>085 | ATL8C4<br>3293:3<br>..2687       | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC007<br>188)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC006<br>918)<br>putati<br>ve pol<br>ypr<br>otei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163146 | ATU025<br>086 | ATL8C1<br>0388:1<br>00..25<br>41 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC005<br>824)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia   |



|        |               |                                 |     |  |  |  |                                 |      |  |                               |            |               |                               |  |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--|-------------------------------|------------|---------------|-------------------------------|--|
| 163147 | ATU025<br>087 | ATL8C2<br>263:33<br>47..59<br>4 | nap |  |  |  | ATL8C2<br>263:32<br>58..59<br>4 | 0.64 |  | g45672<br>95,<br>g47739<br>20 | 100,<br>61 | 1647,<br>1878 | 4.7e-<br>172,<br>1.3e-<br>173 | (AC006<br>918)<br>putati<br>ve pol<br>yprote<br>in [Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t [Arabi<br>dopsis<br>thalia<br>na] |
| 163148 | ATU025<br>088 | ATL8C1<br>3544:1<br>..1154      | nap |  |  |  | ATL8C1<br>3544:7<br>3..626      | 0.64 |  | g40380<br>66,<br>g47739<br>10 | 100,<br>71 | 127,<br>124   | 0.16,<br>5.8e-<br>08          | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi                        |





|        |               |                                   |     |  |  |  |                                   |      |                               |            |             |                             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|------------|-------------|-----------------------------|--|
| 163155 | ATU025<br>095 | ATL8C4<br>2457:4<br>486..6<br>429 | nap |  |  |  | ATL8C4<br>2457:5<br>500..6<br>198 | 0.63 | g45672<br>95                  | 100        | 2058        | 7.4e-<br>214                | na]<br>(AC006<br>918)<br>putati<br>ve pol<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163156 | ATU025<br>096 | ATL8C2<br>0622:4<br>905..5<br>5   | nap |  |  |  | ATL8C2<br>0622:4<br>905..5<br>5   | 0.63 | g44163<br>02                  | 100        | 5249        | 0.0                         | (AFI05<br>716)<br>copia-<br>type<br>pol<br>polypr<br>otein<br>[Zea<br>mays]                        |
| 163157 | ATU025<br>097 | ATL8C1<br>5981:2<br>9..332<br>1   | nap |  |  |  | ATL8C1<br>5981:2<br>9..332<br>1   | 0.63 | g43887<br>28                  | 100        | 355         | 2.6e-<br>32                 | (AC006<br>413)<br>putati<br>ve<br>grl-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163158 | ATU025<br>098 | ATL8C2<br>3017:1<br>..3196        | nap |  |  |  | ATL8C2<br>3017:5<br>9..319<br>6   | 0.62 | g40380<br>66,<br>g33778<br>34 | 100,<br>30 | 771,<br>313 | 5.0e-<br>32,<br>3.0e-<br>13 | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis                              |

|        |               |                                    |     |  |  |  |  |                                    |      |              |     |      |              |  |   |
|--------|---------------|------------------------------------|-----|--|--|--|--|------------------------------------|------|--------------|-----|------|--------------|--|---|
| 163159 | ATU025<br>099 | ATL8C1<br>16:77.<br>.1618          | nap |  |  |  |  | ATL8C1<br>16:77.<br>.1618          | 0.62 | g21046<br>85 | 100 | 553  |              |  | thalia<br>nal;<br>(AF075<br>598)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163160 | ATU025<br>100 | ATL8C2<br>5181:7<br>71..16<br>26   | nap |  |  |  |  | ATL8C2<br>5181:1<br>432..1<br>200  | 0.62 | g29824<br>57 | 100 | 326  | 2.2e-<br>32  |  | (X9790<br>9)<br>transc<br>riptei<br>on<br>factor<br>[Vicia<br>fabal]  |
| 163161 | ATU025<br>101 | ATL8C4<br>4382:7<br>243..1<br>0647 | nap |  |  |  |  | ATL8C4<br>4382:7<br>243..1<br>0641 | 0.62 | g45811<br>64 | 100 | 1628 | 4.2e-<br>172 |  | (AL022<br>223)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                         |
|        |               |                                    |     |  |  |  |  |                                    |      |              |     |      |              |  | (AC006<br>220)<br>putati<br>ve<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia                                |

|        |               |                                     |     |  |  |  |                                     |      |  |                               |            |             |                             |   |
|--------|---------------|-------------------------------------|-----|--|--|--|-------------------------------------|------|--|-------------------------------|------------|-------------|-----------------------------|---|
| 163162 | ATU025<br>102 | ATL8C2<br>2303:1<br>0353..<br>11369 | nap |  |  |  | ATL8C2<br>2303:1<br>0353..<br>11369 | 0.62 |  | g45593<br>62                  | 100        | 1169        | 1.1e-<br>113                | na]<br>(AC006<br>585)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163163 | ATU025<br>103 | ATL8C1<br>248:49<br>65..13<br>25    | nap |  |  |  | ATL8C1<br>248:49<br>65..13<br>25    | 0.62 |  | g44328<br>03                  | 100        | 1565        | 3.0e-<br>133                | (AC006<br>437)<br>putati<br>ve<br>PttA2<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163164 | ATU025<br>104 | ATL8C2<br>4139:2<br>415..1<br>109   | nap |  |  |  | ATL8C2<br>4139:2<br>415..1<br>207   | 0.62 |  | g18711<br>94                  | 100        | 676         | 3.3e-<br>56                 | (U9043<br>9) DNA<br>bindin<br>g<br>protei<br>n<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163165 | ATU025<br>105 | ATL8C4<br>1006:1<br>22..53<br>40    | nap |  |  |  | ATL8C4<br>1006:1<br>22..53<br>03    | 0.62 |  | g45876<br>06,<br>g45593<br>64 | 100,<br>99 | 831,<br>416 | 1.5e-<br>63,<br>5.5e-<br>30 | (AC006<br>951)<br>putati<br>ve<br>antise<br>nse<br>basic                                      |

|        |               |                                  |     |  |  |  |  |  |      |              |     |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|------|--------------|-----|------|--------------|--|
| 163166 | ATU025<br>106 | ATL8C9<br>632:21<br>42..41<br>64 | nap |  |  |  |  |  | 0.62 | g42622<br>13 | 100 | 961  | 5.9e-<br>94  | (AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 163167 | ATU025<br>107 | ATL8C1<br>7335:5<br>31..28<br>61 | nap |  |  |  |  |  | 0.62 | g47739<br>18 | 100 | 1928 | 1.1e-<br>126 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163168 | ATU025        | ATL8C1                           | nap |  |  |  |  |  | 0.61 | g40380       | 100 | 641  | 2.1e-        | (AC005   |

|        |                         |     |  |  |  |                                 |              |              |   |
|--------|-------------------------|-----|--|--|--|---------------------------------|--------------|--------------|---|
| 108    | 250:19<br>570:1<br>6166 |     |  |  |  | 250:19<br>312:1<br>6166         | 66           | 48           | 897)  |
| 163169 | ATU025<br>109           | nap |  |  |  | ATL8C3<br>8607:5<br>34:17<br>75 | g31422<br>93 | 9.6e-<br>187 | hypothetical protein [Arabidopsis thaliana] (AC002411) Contains similarity to myosin IB heavy chain gb X70400 from Gallus gallus . [Arabidopsis thaliana] |
| 163170 | ATU025<br>110           | nap |  |  |  | ATL8C4<br>1812:9<br>1:273<br>9  | g32427<br>11 | 2.4e-<br>235 | (AC003040) hypothetical protein [Arabidopsis thaliana]  |



|        |               |                                  |     |  |  |  |   |               |   |                    |                      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|---|---------------|---|--------------------|----------------------|-------------|--|
| 163171 | ATU025<br>111 | ATL8C9<br>054:28<br>02..94<br>24 | nap |  |  |  | ATL8C9<br>054:28<br>02..78<br>70,<br>ATL8C9<br>054:83<br>87..91<br>74 | 0.61,<br>0.75 | g28322<br>45,<br>g62969<br>3,<br>g44173<br>09 | 100,<br>100,<br>95 | 214,<br>373,<br>3045 |             | (AF031<br>569)<br>hypoth<br>etical<br>protei<br>n<br>[Zea<br>mays];<br>probab<br>le<br>integr<br>ase -<br>common<br>tobacc<br>o<br>(fragm<br>ent)<br>[Nicot<br>iana<br>tabacu<br>m];<br>(AC006<br>446)<br>putati<br>ve pol<br>ypr<br>otei<br>with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163172 | ATU025<br>112 | ATL8C1<br>814:36                 | nap |  |  |  | ATL8C1<br>814:60  | 0.61          | g43097<br>03                                  | 100                | 967                  | 1.8e-<br>78 | (AC006<br>266)   |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |              |     |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|-----|------|--------------|---|
| 163173 | ATU025<br>113 | 5..131<br>4                      | nap |  |  |  |  |  |  | 9..131<br>4                      | 0.61 | g46801<br>80 | 100 | 2423 | 2.4e-<br>219 | putative<br>transposon<br>protein<br>[Arabidopsis<br>thaliana]                |
|        |               | ATL8C4<br>5463:2<br>11..31<br>12 |     |  |  |  |  |  |  | ATL8C4<br>5463:2<br>11..31<br>12 | 0.61 | g46801<br>80 | 100 | 2423 | 2.4e-<br>219 | (AF111709)<br>polyprotein<br>[Oryza sativa<br>subsp. indica]                  |
| 163174 | ATU025<br>114 | ATL8C3<br>108:18<br>9..235<br>0  | nap |  |  |  |  |  |  | ATL8C3<br>108:18<br>9..235<br>0  | 0.61 | g41853<br>10 | 100 | 2789 | 1.3e-<br>267 | (AF090446)<br>gag protein<br>[Zea mays]                                       |
| 163175 | ATU025<br>115 | ATL8C4<br>0531:3<br>4..116<br>6  | nap |  |  |  |  |  |  | ATL8C4<br>0531:5<br>2..988       | 0.61 | g32527<br>92 | 100 | 594  | 4.7e-<br>60  | (AB015609)<br>S-adenosylmethionine<br>decarboxylase<br>[Nicotiana sylvestris] |
| 163176 | ATU025        | ATL8C1                           | nap |  |  |  |  |  |  | ATL8C1                           | 0.61 | g22449       | 100 | 1733 | 1.1e-        | (Z9734)   |

|        |               |                                   |     |  |  |  |  |  |                                   |      |                               |            |              |                     |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|-------------------------------|------------|--------------|---------------------|--|
|        | 116           | 251:28<br>99..41<br>73            |     |  |  |  |  |  | 251:30<br>71..41<br>73            | 66   |                               |            |              | 144                 | 0)<br>unname<br>d<br>protei<br>n<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 163177 | ATU025<br>117 | ATL8C4<br>9534:3<br>898..1        | nap |  |  |  |  |  | ATL8C4<br>9534:3<br>898..1<br>53  | 0.61 | g46894<br>79                  | 100        | 197          | 2.9e-<br>21         | (AC007<br>213)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 163178 | ATU025<br>118 | ATL8C4<br>7089:2<br>01..12<br>07  | nap |  |  |  |  |  | ATL8C4<br>7089:2<br>01..10<br>58  | 0.61 | g45824<br>55                  | 100        | 719          | 3.0e-<br>74         | (AC007<br>071)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163179 | ATU025<br>119 | ATL8C1<br>4501:6<br>057..1<br>699 | nap |  |  |  |  |  | ATL8C1<br>4501:6<br>057..1<br>757 | 0.61 | g33778<br>16,<br>g42636<br>53 | 100,<br>43 | 3930,<br>190 | 0.0,<br>1.5e-<br>11 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity   |



|        |               |                                  |     |  |  |  |  |  |                                  |      |              |     |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|-----|------|-------------|---|
| 163181 | ATU025<br>121 | ATL8C3<br>0926:2<br>571..1<br>45 | nap |  |  |  |  |  | ATL8C3<br>0926:2<br>331..2<br>47 | 0.61 | g45843<br>54 | 100 | 1219 | 4.5e-<br>89 | proteol<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>217)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>420)<br>putati<br>ve<br>PttA-<br>like<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163182 | ATU025<br>122 | ATL8C1<br>4056:6<br>26..21<br>85 | nap |  |  |  |  |  | ATL8C1<br>4056:6<br>26..21<br>85 | 0.61 | g38602<br>63 | 100 | 882  | 1.0e-<br>87 | (AC005<br>824)<br>putati<br>ve<br>cytoch<br>rome<br>p450<br>protei<br>n<br>[Arabi   |



|        |               |                                  |     |  |  |  |                                  |      |              |     |      |              |  |
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| 163186 | ATU025<br>126 | ATL8C2<br>3353:3<br>90..52<br>53 | nap |  |  |  | ATL8C2<br>3353:3<br>90..52<br>53 | 0.60 | 942636<br>55 | 100 | 3024 | 0.0          | Similar to Arabidopsis putative ion-channel<br>PID:g2<br>262157<br>(gb AC<br>002329<br>).<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163187 | ATU025<br>127 | ATL8C3<br>317:28<br>45..22<br>1  | nap |  |  |  | ATL8C3<br>317:27<br>36..29<br>8  | 0.60 | 933778<br>16 | 100 | 2742 | 5.1e-<br>251 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis  |





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| 163189 | ATU025<br>129 | ATL8C2<br>2983:9<br>19..32<br>91 | nap |  |  |  |  | ATL8C2<br>2983:1<br>241..3<br>143 | 0.60 | g42042<br>72 | 100 | 2218 | 6.4e-<br>220 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>223)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163190 | ATU025<br>130 | ATL8C2<br>014:10<br>62..10<br>9  | nap |  |  |  |  | ATL8C2<br>014:94<br>0..145        | 0.60 | g35401<br>90 | 100 | 423  | 2.1e-<br>40  | (AC004<br>122)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 163191 | ATU025<br>131 | ATL8C3<br>3495:7<br>3..198<br>0  | nap |  |  |  |  | ATL8C3<br>3495:7<br>3..198<br>0   | 0.60 | g43097<br>03 | 100 | 1065 | 9.9e-<br>93  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 163192 | ATU025<br>132 | ATL8C1<br>1423:4<br>7..141<br>5  | nap |  |  |  |  | ATL8C1<br>1423:3<br>47..13<br>83  | 0.60 | g44553<br>00 | 100 | 1478 | 2.3e-<br>131 | (AL035<br>528)<br>putati<br>ve  |

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| 163193 | ATU025<br>133 | ATL8C3<br>7152:2<br>531..1<br>300 | nap |  |  |  |  | ATL8C3<br>7152:2<br>451..1<br>300                                  | 0.60          | g36084<br>12                                   | 100            | 683                  |                                     |  | pectate<br>lyase<br>All<br>(fragment)<br>[Arabidopsis<br>thaliana]  |
| 163194 | ATU025<br>134 | ATL8C2<br>27:276<br>..5688        | nap |  |  |  |  | ATL8C2<br>27:276<br>..1840<br>,<br>ATL8C2<br>27:398<br>4..533<br>1 | 0.60,<br>0.52 | g45860<br>66,<br>g40380<br>66,<br>g33778<br>16 | 100,<br>55, 35 | 3171,<br>339,<br>434 | 0.0,<br>2.1e-<br>31,<br>4.0e-<br>43 |  | (AC006<br>194)<br>putative<br>polyprotein,<br>3,<br>partial<br>[Arabidopsis<br>thaliana];<br>(AC005<br>897)<br>hypothetical |



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| 163197 | ATU025<br>137 | ATL8C4<br>2410:1<br>356..1<br>43 | nap |  |  |  |  |  | ATL8C4<br>2410:1<br>356..3<br>71 | 0.60 | g46782<br>10 | 100 | 509  | 1.2e-<br>46  | dopsis<br>thalia<br>na]<br>(AC007<br>134)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163198 | ATU025<br>138 | ATL8C1<br>414:57<br>..3274       | nap |  |  |  |  |  | ATL8C1<br>414:57<br>..2888       | 0.60 | g42630<br>63 | 100 | 1913 | 2.8e-<br>147 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 163199 | ATU025<br>139 | ATL8C3<br>6624:2<br>975..2<br>70 | nap |  |  |  |  |  | ATL8C3<br>6624:2<br>276..2<br>70 | 0.60 | g41153<br>61 | 100 | 648  | 4.9e-<br>60  | (AC005<br>957)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 163200 | ATU025<br>140 | ATL8C4<br>4742:3<br>021..3<br>40 | nap |  |  |  |  |  | ATL8C4<br>4742:3<br>021..4<br>03 | 0.60 | g43888<br>21 | 100 | 1639 | 1.1e-<br>175 | (AC006<br>528)<br>putati<br>ve<br>mudrA<br>transp<br>osase  |

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| 163201 | ATU025<br>141 | ATL8C3<br>4020:7<br>171..3<br>911 | nap |  |  |  |  |  | ATL8C3<br>4020:7<br>073..3<br>911 | 0.60 | g30803<br>58,<br>g30803<br>59 | 100,<br>99 | 1142,<br>445 | 6.4e-<br>106,<br>1.8e-<br>19   | protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163202 | ATU025<br>142 | ATL8C1<br>9555:3<br>463..2<br>54  | nap |  |  |  |  |  | ATL8C1<br>9555:3<br>463..6<br>67  | 0.60 | g44553<br>16                  | 100        | 1345         | 4.9e-<br>70                    | protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163203 | ATU025<br>143 | ATL8C2<br>7388:9<br>40..34<br>40  | nap |  |  |  |  |  | ATL8C2<br>7388:1<br>729..3<br>421 | 0.60 | g32692<br>93,<br>g41159<br>21 | 100,<br>38 | 478,<br>503  | (AL030<br>978)<br>putati<br>ve | protein<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 163204 | ATU025<br>144 | ATL8C3<br>4955:8<br>57..23<br>68 | nap |  |  |  |  | ATL8C3<br>4955:8<br>82..23<br>68 | 0.60 | g25418<br>76 | 100 | 943  | 2.8e-<br>98  | prote<br>in<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AF118<br>222)<br>F3H7.4<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>nal<br>(D2601<br>5)<br>CND41,<br>chloro<br>plast<br>nucleo<br>id DNA<br>bindin<br>g<br>protei<br>n<br>[Nicot<br>iana<br>tabacu<br>m] |
| 163205 | ATU025<br>145 | ATL8C1<br>7049:1<br>26..15<br>85 | nap |  |  |  |  | ATL8C1<br>7049:1<br>26..15<br>85 | 0.60 | g43097<br>03 | 100 | 1230 | 5.3e-<br>123 | (AC006<br>266)<br>putati<br>ve.<br>transp<br>oson<br>protei<br>n<br>[Arabi   |







|        |               |                                   |     |  |  |  |  |                                   |      |                               |             |             |                             |   |
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| 163210 | ATU025<br>150 | ATL8C2<br>7255:1<br>85..11<br>32  | nap |  |  |  |  | ATL8C2<br>7255:5<br>64..11<br>32  | 0.59 | g32528<br>10                  | 100         | 1056        |                             | na];<br>(AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163211 | ATU025<br>151 | ATL8C9<br>071:26<br>8..148<br>4   | nap |  |  |  |  | ATL8C9<br>071:26<br>8..137<br>7   | 0.58 | g13506<br>80                  | 100         | 1718        |                             | 60S<br>RIBOSO<br>MAL<br>PROTEI<br>N L1<br>[]  |
| 163212 | ATU025<br>152 | ATL8C1<br>6616:1<br>490..5<br>481 | nap |  |  |  |  | ATL8C1<br>6616:1<br>490..5<br>481 | 0.58 | g30803<br>75,<br>g17303<br>28 | 100,<br>100 | 931,<br>707 | 1.3e-<br>99,<br>5.9e-<br>56 | (AL022<br>580)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis   |





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| 163217 | ATU025<br>157 | ATL8C3<br>1891:1<br>..5371       | nap |  |  |  | ATL8C3<br>1891:1<br>159..5<br>210 | 0.57 | g40380<br>66,<br>g33193<br>60 | 100,<br>61 | 729,<br>1867 | 1.5e-<br>42,<br>7.1e-<br>107 | na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163218 | ATU025<br>158 | ATL8C4<br>6073:3<br>788..5<br>29 | nap |  |  |  | ATL8C4<br>6073:3<br>788..5<br>29  | 0.57 | g45824<br>55                  | 100        | 392          | 2.1e-<br>41                  | (AC007<br>071)<br>putati<br>ve<br>recept<br>or<br>protei<br>n   |

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| 163219 | ATU025<br>159 | ATL8C3<br>4227:1<br>012..5<br>231 | nap |  |  |  |  | ATL8C3<br>4227:1<br>012..5<br>231 | 0.57 | g44163<br>01 | 100 | 3814 | 0.0          | kinase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]                      |
| 163220 | ATU025<br>160 | ATL8C1<br>2846:1<br>627..3<br>501 | nap |  |  |  |  | ATL8C1<br>2846:1<br>627..3<br>501 | 0.57 | g45672<br>96 | 100 | 2305 | 8.5e-<br>209 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retroee<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163221 | ATU025<br>161 | ATL8C2<br>1190:4<br>795..7<br>528 | nap |  |  |  |  | ATL8C2<br>1190:4<br>966..7<br>528 | 0.57 | g42638<br>30 | 100 | 2822 | 3.0e-<br>210 | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 163222 | ATU025<br>162 | ATL8C1<br>7674:2<br>43..39<br>84  | nap |  |  |  |  | ATL8C1<br>7674:2<br>43..36<br>66  | 0.57 | g45811<br>64 | 100 | 1827 | 6.1e-<br>179 | (AC006<br>220)<br>putati<br>ve  |

|        |               |                                   |     |  |  |  |  |                                   |      |                               |            |              |     |  |  |
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| 163223 | ATU025<br>163 | ATL8C1<br>0307:1<br>815..6<br>559 | nap |  |  |  |  | ATL8C1<br>0307:3<br>606..6<br>520 | 0.57 | g45811<br>64,<br>g33778<br>30 | 100,<br>40 | 1676,<br>567 |     |  | polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>220)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Aplysi<br>a<br>califo<br>rnica<br>interm<br>ediate<br>filame<br>nt<br>protei<br>n A<br>(GB:X6<br>0297)<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF128 |
| 163224 | ATU025        | ATL8C1                            | nap |  |  |  |  | ATL8C1                            | 0.56 | g43253                        | 100        | 3851         | 0.0 |  | (AF128   |

|        |                         |                                    |     |  |  |                                    |      |  |                |                      |   |   |
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| 164    | 4776:5<br>003..1<br>136 |                                    |     |  |  | 4776:4<br>604..1<br>136            | 51   |  |                |                      |   | 394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163225 | ATU025<br>165           | ATL8C4<br>2833:1<br>8..832         | nap |  |  | ATL8C4<br>2833:6<br>05..83<br>2    | 0.56 | g42621<br>75                                   | 100            | 948                  | 2.7e-<br>74                                   | (AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163226 | ATU025<br>166           | ATL8C3<br>2751:7<br>989..1<br>1447 | nap |  |  | ATL8C3<br>2751:7<br>989..1<br>1177 | 0.56 | g36953<br>97,<br>g48369<br>30,<br>g44173<br>08 | 100,<br>50, 42 | 2021,<br>693,<br>264 | 1.8e-<br>170,<br>6.6e-<br>177,<br>2.6e-<br>36 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>085)<br>Hypoth   |







|        |               |                                   |     |  |  |  |  |  |      |                               |            |              |              |  |
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| 163232 | ATU025<br>172 | ATL8C2<br>3878:2<br>51..16<br>48  | nap |  |  |  |  |  | 0.56 | g15466<br>88                  | 100        | 1027         | 8.4e-<br>88  | thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163233 | ATU025<br>173 | ATL8C3<br>0623:3<br>352..1<br>229 | nap |  |  |  |  |  | 0.56 | g40637<br>41                  | 100        | 937          | 6.2e-<br>103 | (X9880<br>2)<br>peroxi<br>dase<br>ATP11a<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |
| 163234 | ATU025<br>174 | ATL8C1<br>0314:1<br>..2514        | nap |  |  |  |  |  | 0.56 | g40380<br>66,<br>g44173<br>09 | 100,<br>45 | 616,<br>1572 |              | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi  |

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|        |               |                                    |     |  |  |  |  |  |  | dopsis<br>thalia<br>nal;<br>(AC006<br>446)<br>putati<br>ve pol<br>polypr<br>oteins<br>with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163235 | ATU025<br>175 | ATL8C2<br>4835:2<br>195...8<br>484 | nap |  |  |  |  |  |  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>194)<br>putati<br>ve pol<br>polypr<br>oteins,<br>3'<br>partia<br>l [Arabi       |







|        |               |                                   |     |  |  |  |  |                                   |      |  |                   |                      |  |  |
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| 163243 | ATU025<br>183 | ATL8C2<br>8274:1<br>983..1<br>391 | nap |  |  |  |  | ATL8C2<br>8274:1<br>950..1<br>391 | 0.55 | g29824<br>45                                   | 100               | 296                  | 1.0e-<br>31                                  | thalia<br>nal;<br>(AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AL022<br>224)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163244 | ATU025<br>184 | ATL8C3<br>3387:1<br>593..2<br>24  | nap |  |  |  |  | ATL8C3<br>3387:1<br>593..2<br>28  | 0.55 | g46462<br>26                                   | 100               | 1102                 | 2.2e-<br>104                                 | (AC007<br>235)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163245 | ATU025<br>185 | ATL8C4<br>063:12<br>596..4<br>559 | nap |  |  |  |  | ATL8C4<br>063:12<br>596..4<br>559 | 0.55 | g40380<br>66,<br>g47739<br>10,<br>g45570<br>68 | 100,<br>83,<br>63 | 746,<br>347,<br>1333 | 1.7e-<br>36,<br>2.9e-<br>31,<br>2.8e-<br>188 | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |





[illegible]



|        |               |                                  |     |  |  |  |  |  |                                  |      |              |     |     |             |  |
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| 163251 | ATU025<br>191 | ATL8C1<br>4340:2<br>140..6<br>12 | nap |  |  |  |  |  | ATL8C1<br>4340:2<br>140..6<br>12 | 0.54 | g31526<br>00 | 100 | 702 | 2.5e-<br>72 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC002<br>986)<br>Contai<br>ns<br>simila<br>rity<br>to S.<br>cerevi<br>siae<br>hypo<br>thetical<br>protei<br>n<br>YOR197<br>w,<br>gb Z75<br>105.<br>ESTs<br>gb H37<br>409,<br>gb AA3<br>95290,<br>and<br>gb T43<br>907<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
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|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|-----|------|--------------|--|
| 163256 | ATU025<br>196 | ATL8C5<br>0080:4<br>12..14<br>61 | nap |  |  |  |  | ATL8C5<br>0080:4<br>12..14<br>61 | 0.54 | g45824<br>55 | 100 | 410  | 1.5e-<br>35  | (AC007<br>071)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163257 | ATU025<br>197 | ATL8C4<br>6653:1<br>904..2<br>63 | nap |  |  |  |  | ATL8C4<br>6653:1<br>832..2<br>63 | 0.54 | g47339<br>67 | 100 | 870  | 1.3e-<br>81  | (AC007<br>261)<br>envelo<br>pe-<br>like<br>protie<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 163258 | ATU025<br>198 | ATL8C1<br>5874:4<br>390..9<br>50 | nap |  |  |  |  | ATL8C1<br>5874:4<br>390..9<br>53 | 0.54 | g41153<br>83 | 100 | 1595 | 5.3e-<br>171 | (AC005<br>967)<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi                                   |



|        |               |                                   |     |  |  |  |  |                                   |      |                               |            |              |                              |   |
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| 163261 | ATU025<br>201 | ATL8C3<br>2887:2<br>50..16<br>43  | nap |  |  |  |  | ATL8C3<br>2887:2<br>50..16<br>43  | 0.53 | g46894<br>52                  | 100        | 713          | 1.3e-<br>67                  | (AC006<br>267)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163262 | ATU025<br>202 | ATL8C2<br>9990:1<br>016..3<br>009 | nap |  |  |  |  | ATL8C2<br>9990:1<br>016..2<br>860 | 0.53 | g38106<br>01,<br>g48951<br>65 | 100,<br>53 | 1222,<br>660 | 1.4e-<br>123,<br>1.7e-<br>32 | (AC005<br>398)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC007<br>231)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia |



|        |               |                                   |     |  |  |  |                                   |      |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
| 163263 | ATU025<br>203 | ATL8C1<br>8971:1<br>092...3<br>7  | nap |  |  |  | ATL8C1<br>8971:1<br>092...3<br>7  | 0.53 | g26606<br>76 | 100 | 1189 | 3.8e-<br>113 | na]<br>(AC002<br>342)<br>Dreg-2<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 163264 | ATU025<br>204 | ATL8C3<br>2118:3<br>035...6<br>38 | nap |  |  |  | ATL8C3<br>2118:3<br>035...6<br>38 | 0.53 | g49143<br>36 | 100 | 991  | 1.9e-<br>96  | (AC005<br>489)<br>F14N23<br>.22<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163265 | ATU025<br>205 | ATL8C2<br>067:23<br>04...30<br>3  | nap |  |  |  | ATL8C2<br>067:20<br>38...41<br>1  | 0.53 | g43253<br>48 | 100 | 1807 | 1.0e-<br>153 | (AF128<br>394)<br>contai<br>ns<br>simila<br>rity<br>to<br>phosph<br>ate<br>transp<br>orters<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163266 | ATU025<br>206 | ATL8C7<br>706:37<br>63...30<br>94 | nap |  |  |  | ATL8C7<br>706:35<br>90...32<br>46 | 0.53 | g40380<br>66 | 100 | 669  | 4.2e-<br>28  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n  |

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| 163267 | ATU025<br>207 | ATL8C4<br>6149:1<br>7911..<br>12828 | nap |  |  |  | ATL8C4<br>6149:1<br>7859..<br>12971 | 0.53 | g40380<br>66,<br>g33193<br>60 | 100,<br>59 | 499,<br>2146 | 1.1e-<br>27,<br>4.8e-<br>177 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163268 | ATU025<br>208 | ATL8C4<br>5395:3<br>92..29<br>08    | nap |  |  |  | ATL8C4<br>5395:1<br>448..2<br>695   | 0.52 | g28530<br>91,<br>g32506<br>74 | 100,<br>88 | 217,<br>283  | 7.2e-<br>20,<br>3.9e-<br>31  | (AL021<br>768)<br>hypoth<br>etical<br>protei  |

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| 163269 | ATU025<br>209 | ATL8C1<br>220:16<br>3..213<br>7   | nap |  |  |  |  |                                   | ATL8C1<br>220:16<br>3..195<br>6 | 0.52                          | g40380<br>66 | 100          | 779                 | 1.7e-<br>51   | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163270 | ATU025<br>210 | ATL8C3<br>9688:6<br>014..2<br>466 | nap |  |  |  |  | ATL8C3<br>9688:5<br>358..2<br>466 | 0.52                            | g44327<br>95,<br>g44327<br>94 | 100,<br>64   | 927,<br>2903 | 1.0e-<br>47,<br>0.0 | (AC006<br>437)<br>putati<br>ve<br>protei<br>n 2 of<br>of the<br>En/Spm<br>transp<br>osable<br>elemen<br>t<br>system<br>of Zea<br>mays |  |

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| 163271 | ATU025<br>211 | ATL8C1<br>2145:9<br>9..472<br>9   | nap |  |  |  |  |  | ATL8C1<br>2145:9<br>9..472<br>9   | 0.52 | g46801<br>80 | 100 | 2295 | 4.1e-<br>193 | [Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>437)<br>putati<br>ve<br>Tnp2<br>Taml<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163272 | ATU025<br>212 | ATL8C1<br>3033:1<br>434..2<br>646 | nap |  |  |  |  |  | ATL8C1<br>3033:1<br>434..2<br>064 | 0.52 | g13635<br>28 | 100 | 1689 | 8.8e-<br>139 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]  |
| 163273 | ATU025<br>213 | ATL8C4<br>023:70<br>20..12<br>35  | nap |  |  |  |  |  | ATL8C4<br>023:70<br>20..42<br>69  | 0.52 | g47739<br>10 | 100 | 633  | 5.5e-<br>43  | [AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found   |

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| 163274 | ATU025<br>214 | ATL8C3<br>7158:2<br>8..972       | nap |  |  |  | ATL8C3<br>7158:2<br>8..690       | 0.51 | g45875<br>23                  | 100        | 1103        | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>060)<br>T5i8.1<br>2<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163275 | ATU025<br>215 | ATL8C3<br>7374:1<br>597..2<br>60 | nap |  |  |  | ATL8C3<br>7374:1<br>597..3<br>23 | 0.51 | g45389<br>21                  | 100        | 646         | (AL049<br>483)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 163276 | ATU025<br>216 | ATL8C7<br>180:19<br>6..155<br>6  | nap |  |  |  | ATL8C7<br>180:85<br>3..155<br>6  | 0.51 | g42621<br>75                  | 100        | 857         | (AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163277 | ATU025<br>217 | ATL8C3<br>3349:1<br>810..1       | nap |  |  |  | ATL8C3<br>3349:1<br>810..3<br>7  | 0.51 | g45859<br>33,<br>g38105<br>96 | 100,<br>54 | 514,<br>251 | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005       |

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| 163278 | ATU025<br>218 | ATL8C1<br>4096:6<br>588..4<br>72 | nap |  |  |  | ATL8C1<br>4096:6<br>588..1<br>496 | 0.51 | g46781<br>97,<br>g35598<br>05 | 100,<br>68 | 5777,<br>827 | 0.0,<br>6.1e-<br>80 | 398)<br>revers<br>e-<br>transc<br>riptas<br>e-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163279 | ATU025        | ATL8C1                           | nap |  |  |  | ATL8C1                            | 0.51 | g46782                        | 100        | 518          |                     | (AC007<br>134)<br>simila<br>r to<br>retrov<br>iral<br>aspart<br>yl<br>protea<br>ses<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AJ006<br>787)<br>putati<br>ve<br>phytoc<br>helati<br>n<br>synthe<br>tase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007 |



|        |               |                                  |     |  |  |  |               |                               |     |                              |   |
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| 163284 | ATU025<br>224 | ATL8C1<br>0246:1<br>380..4<br>07 | nap |  |  |  | 315..3<br>602 | g44173<br>09,<br>g33778<br>34 | 725 | 2.0e-<br>170,<br>3.7e-<br>35 | hypothetical protein [Arabidopsis thaliana]; (AC006446) putative polypeptide with a reverse transcriptase domain [Arabidopsis thaliana]; (AF075598) No definition line found [Arabidopsis thaliana] |
|        |               |                                  |     |  |  |  |               |                               |     | 6.4e-<br>90                  | (AC002333) endochitinase  |



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| 163285 | ATU025<br>225 | ATL8C1<br>0395:1<br>059..3<br>16  | nap |  |  |  |  | ATL8C1<br>0395:1<br>026..4<br>42  | 0.50 | g29247<br>82                  | 100         | 1162         |                              | e<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 163286 | ATU025<br>226 | ATL8C9<br>821:32<br>06..72<br>6   | nap |  |  |  |  | ATL8C9<br>821:32<br>06..72<br>6   | 0.50 | g38343<br>19                  | 100         | 945          | 1.3e-<br>100                 | (AC002<br>334)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163287 | ATU025<br>227 | ATL8C2<br>1328:1<br>489..3<br>47  | nap |  |  |  |  | ATL8C2<br>1328:1<br>489..5<br>71  | 0.50 | g27087<br>51                  | 100         | 619          | 2.2e-<br>66                  | (AC003<br>952)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163288 | ATU025<br>228 | ATL8C1<br>4031:8<br>558..3<br>895 | nap |  |  |  |  | ATL8C1<br>4031:4<br>953..3<br>951 | 0.50 | g42636<br>58,<br>g49143<br>61 | 100,<br>100 | 2297,<br>802 | 4.9e-<br>225,<br>6.8e-<br>89 | (AC006<br>136)<br>hypoth<br>etical<br>protei<br>n                                      |

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| 163289 | ATU025<br>229 | ATL8C1<br>7220:2<br>71..93<br>8 | nap |  |  |  |  | ATL8C1<br>7220:3<br>20..78<br>8 | 0.50 | g40380<br>66 | 100 | 687  | 3.5e-<br>49  | [Arabi<br>dopsis<br>thalia<br>nal;<br>(AC007<br>289)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163290 | ATU025<br>230 | ATL8C3<br>0823:8<br>33..13<br>0 | nap |  |  |  |  | ATL8C3<br>0823:5<br>12..13<br>0 | 0.49 | g45126<br>92 | 100 | 431  | 7.1e-<br>36  | (AC006<br>569)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163291 | ATU025<br>231 | ATL8C1<br>6700:2<br>07..38      | nap |  |  |  |  | ATL8C1<br>6700:2<br>07..38      | 0.49 | g45860<br>66 | 100 | 2289 | 2.5e-<br>243 | (AC006<br>194)<br>putati   |



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| 163294 | ATU025<br>234 | ATL8C1<br>4763:9<br>..3206       | nap |  |  |  |  |  | 0.49 | g40380<br>66 | 100 | 766 | 1.1e-<br>35 | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               | e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 163295 | ATU025<br>235 | ATL8C4<br>5709:1<br>558..1<br>45 | nap |  |  |  |  |  | 0.49 | g46894<br>52 | 100 | 755 | 5.7e-<br>71 | (AC006<br>267)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | (AC006<br>267)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163296 | ATU025<br>236 | ATL8C1<br>0345:1<br>68..18<br>11 | nap |  |  |  |  |  | 0.49 | g45861<br>19 | 100 | 423 | 2.5e-<br>44 | (AL049<br>638)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   | (AL049<br>638)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |



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| 163298 | ATU025<br>238 | ATL8C3<br>443:1.<br>.3808       | nap |  |  |  | ATL8C3<br>443:50<br>4..380<br>8 | 0.49 |  | g29824<br>44,<br>g83695<br>4  | 100,<br>32 | 912,<br>128   | 3.0e-<br>105,<br>4.2e-<br>08 | na]<br>(AL022<br>224)<br>CLV1<br>recept<br>or<br>kinase<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(U2094<br>8)<br>recept<br>or<br>protei<br>n<br>kinase<br>[Ipomo<br>ea<br>trifid<br>a] |
| 163299 | ATU025<br>239 | ATL8C6<br>51:726<br>4..334<br>4 | nap |  |  |  | ATL8C6<br>51:669<br>6..334<br>4 | 0.49 |  | g43253<br>48,<br>g30470<br>73 | 100,<br>53 | 1436,<br>1126 | 9.0e-<br>89,<br>3.4e-<br>59  | (AF128<br>394)<br>contai<br>ns<br>simila<br>rity<br>to<br>phosph<br>ate<br>transp<br>orters<br>[Arabi<br>dopsis<br>thalia<br>na];   |

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| 163300 | ATU025<br>240 | ATL8C1<br>4031:3<br>25..28<br>91 | nap |  |  |  |  |  |  | ATL8C1<br>4031:3<br>87..22<br>86 | 0.49 | g32362<br>53 | 100 | 1287 | 6.8e-<br>138 | (AF058<br>825)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrot<br>ranspo<br>son-<br>like<br>protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163301 | ATU025<br>241 | ATL8C3<br>7409:1<br>525..5<br>1  | nap |  |  |  |  |  |  | ATL8C3<br>7409:1<br>187..5<br>1  | 0.49 | g14029<br>18 | 100 | 969  |              | (X9832<br>0)<br>peroxi<br>dase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163302 | ATU025<br>242 | ATL8C1<br>419:23<br>8..253       | nap |  |  |  |  |  |  | ATL8C1<br>419:18<br>92..14       | 0.49 | g48862<br>86 | 100 | 365  | 2.8e-<br>29  | (AL050<br>300)<br>putati  |

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| 163303 | ATU025<br>243 | ATL8C9<br>287:23<br>43..26<br>5 | nap |  |  |  |  | 50                              |      |                               |  |  | 100        | 1433         |                              | ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                                 |     |  |  |  |  | ATL8C9<br>287:23<br>43..26<br>5 | 0.48 | g22449<br>16                  |  |  |            |              |                              | (Z9733<br>9)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163304 | ATU025<br>244 | ATL8C1<br>061:1.<br>.3593       | nap |  |  |  |  | ATL8C1<br>061:55<br>..3414      | 0.48 | g40380<br>66,<br>g33193<br>60 |  |  | 100,<br>30 | 614,<br>1497 | 3.6e-<br>20,<br>2.3e-<br>118 | (AC005<br>897)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like |



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| 163305 | ATU025<br>245 | ATL8C4<br>3187:4<br>622..2<br>924 | nap |  |  |  | ATL8C4<br>3187:4<br>584..3<br>223 | 0.48 | g40380<br>66,<br>g47739<br>10 | 100,<br>66 | 790,<br>366 | 1.3e-<br>47,<br>2.0e-<br>24 | gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                   |     |  |  |  |                                   |      |                               |            |             |                             | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163306 | ATU025<br>246 | ATL8C5<br>223:16<br>4..213<br>2   | nap |  |  |  | ATL8C5<br>223:16<br>4..442        | 0.48 | g27393<br>87                  | 100        | 249         | 2.6e-<br>15                 | (AC002<br>505)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163307 | ATU025        | ATL8C3                            | nap |  |  |  | ATL8C3                            | 0.48 | g33373                        | 100        | 1773        | 1.1e-                       | (AC004  |

|        |               |                                  |     |  |  |  |                                  |      |                         |            |              |                              |     |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|-------------------------|------------|--------------|------------------------------|-----|--|
|        | 247           | 4823:2<br>582..6<br>241          |     |  |  |  | 4823:2<br>582..6<br>241          |      | 67                      |            |              |                              | 155 | 481)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163308 | ATU025<br>248 | ATL8C3<br>3168:1<br>03..28<br>85 | nap |  |  |  | ATL8C3<br>3168:1<br>03..28<br>85 | 0.48 | g13635<br>28,<br>g22244 | 100,<br>99 | 1755,<br>148 | 4.7e-<br>139,<br>0.0001<br>3 |     | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays];<br>(X0026<br>3)<br>uniden<br>tified<br>readin<br>g<br>frame<br>[Zea<br>mays] |
| 163309 | ATU025<br>249 | ATL8C4<br>3267:3<br>81..14<br>92 | nap |  |  |  | ATL8C4<br>3267:3<br>81..14<br>92 | 0.48 | g47339<br>67            | 100        | 1263         | 2.1e-<br>102                 |     | (AC007<br>261)<br>envelo<br>pe-<br>like<br>protie<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                 |
| 163310 | ATU025<br>250 | ATL8C3<br>5762:5<br>323..6<br>5  | nap |  |  |  | ATL8C3<br>5762:4<br>430..6<br>5  | 0.47 | g42189<br>91            | 100        | 1972         | 1.1e-<br>194                 |     | (AF098<br>632)<br>subtil<br>isin-<br>like  |







|        |               |                  |     |  |  |  |                                    |  |                              |                                       |   |  |
|--------|---------------|------------------|-----|--|--|--|------------------------------------|--|------------------------------|---------------------------------------|---|--|
| 163319 | ATU025<br>259 | 3548:1<br>..2752 | nap |  |  |  | 3548:8<br>91..26<br>99             | 56,<br>940380<br>62  | 64                           | 1165                                  | 108,<br>4.9e-<br>131  | 217)<br>putative<br>transposase<br>[Arabidopsis<br>thaliana];<br>(AC005897)<br>putative<br>transposon<br>MudR<br>[Arabidopsis<br>thaliana] |
|        |               |                  |     |  |  |  | ATL8C2<br>1648:1<br>0265..<br>3987 | 932427<br>13,<br>921911<br>90,<br>942630<br>51,<br>948742<br>95,<br>945586<br>77 | 100,<br>88,<br>56,<br>52, 51 | 1588,<br>1044,<br>165,<br>149,<br>168 | 1.4e-<br>172,<br>1.6e-<br>105,<br>9.6e-<br>19,<br>2.3e-<br>30,<br>6.2e-<br>07 | (AC003040)<br>putative<br>transposase<br>[Arabidopsis<br>thaliana];<br>(AF007271)<br>contains a<br>short region<br>of similarity<br>to     |

[illegible]

|        |               |                                   |     |  |  |  |                                   |      |                               |            |              |               |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|------------|--------------|---------------|---|
| 163320 | ATU025<br>260 | ATL8C3<br>0005:3<br>409..2<br>9   | nap |  |  |  | ATL8C3<br>0005:2<br>667..2<br>9   | 0.46 | g45860<br>66                  | 100        | 2251         | 1.1e-<br>250  | (AC006<br>194)<br>putati<br>ve pol<br>polypr<br>oteins,<br>3'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 163321 | ATU025<br>261 | ATL8C1<br>4887:1<br>363..6<br>41  | nap |  |  |  | ATL8C1<br>4887:1<br>363..6<br>47  | 0.46 | g22286<br>86                  | 100        | 249          | 2.0e-<br>19   | (U8313<br>6)<br>hypoth<br>etical<br>ABC<br>transp<br>orter<br>[Rhodo<br>bacter<br>sphaer<br>oides]  |
| 163322 | ATU025<br>262 | ATL8C1<br>3016:1<br>0237..<br>381 | nap |  |  |  | ATL8C1<br>3016:1<br>0198..<br>381 | 0.46 | g22449<br>59,<br>g28276<br>39 | 100,<br>99 | 5190,<br>187 | 0.0,<br>0.997 | (Z9734<br>0)<br>simila<br>r to<br>B.vulg<br>aris<br>CMS-<br>associ<br>ated<br>mitoch<br>ondria<br>l ...<br>(rever<br>se<br>transc<br>riptas |



|        |               |                                  |     |  |  |  |  |                                  |      |              |     |      |              |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|-----|------|--------------|--|--|
| 163323 | ATU025<br>263 | ATL8C1<br>36:221<br>9..137<br>0  | nap |  |  |  |  | ATL8C1<br>36:221<br>9..137<br>0  | 0.45 | g48951<br>89 | 100 | 244  |              |  | e)<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AL021<br>636)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>661)<br>unknow<br>n protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163324 | ATU025<br>264 | ATL8C2<br>0680:4<br>91..24<br>79 | nap |  |  |  |  | ATL8C2<br>0680:5<br>03..23<br>84 | 0.45 | g38596<br>00 | 100 | 1078 | 2.9e-<br>119 |  | (AF104<br>919)<br>T15B16<br>.6<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163325 | ATU025<br>265 | ATL8C4<br>9154:6<br>47..26<br>21 | nap |  |  |  |  | ATL8C4<br>9154:6<br>47..23<br>85 | 0.45 | g13703<br>5  | 100 | 413  | 1.1e-<br>37  |  | URACIL<br>-DNA<br>GLYCOS<br>YLASE  |





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| 163332 | ATU025<br>272 | ATL8C2<br>3733:8<br>19..22<br>11  | nap |  |  |  | ATL8C2<br>3733:8<br>19..22<br>11  | 0.43 | 943887<br>18 | 100 | 1053 | 3.3e-<br>102 | (AC006<br>413)<br>putati<br>ve<br>Ty3-<br>type<br>pol<br>polypr<br>oteins,<br>includ<br>ing<br>integr<br>ase<br>domain<br>with<br>DDE<br>signat<br>ure<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163333 | ATU025<br>273 | ATL8C3<br>2751:7<br>476..5<br>035 | nap |  |  |  | ATL8C3<br>2751:6<br>790..5<br>035 | 0.43 | 942630<br>63 | 100 | 2970 | 1.4e-<br>233 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163334 | ATU025<br>274 | ATL8C4<br>7020:2<br>446..1<br>501 | nap |  |  |  | ATL8C4<br>7020:2<br>422..1<br>501 | 0.43 | 919463<br>31 | 100 | 909  | 9.6e-<br>90  | (U6915<br>5)<br>prohib<br>itin<br>[Arabi<br>dopsis<br>thalia<br>na]   |

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| 163335 | ATU025<br>275 | ATL8C1<br>1428:1<br>467..6<br>17 | nap |  |  | ATL8C1<br>1428:1<br>317..6<br>26 | 0.43 | g22752<br>14 | 100 | 356 | 2.8e-<br>29 | (AC002<br>337)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163336 | ATU025<br>276 | ATL8C1<br>9632:1<br>70..10<br>39 | nap |  |  | ATL8C1<br>9632:1<br>70..10<br>39 | 0.43 | g45860<br>54 | 100 | 707 | 3.1e-<br>48 | (AC007<br>020)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 163337 | ATU025<br>277 | ATL8C1<br>0861:1<br>..1487       | nap |  |  | ATL8C1<br>0861:4<br>1..148<br>7  | 0.43 | g47551<br>99 | 100 | 822 | 4.0e-<br>55 | (AC007<br>018)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163338 | ATU025<br>278 | ATL8C2<br>7923:3<br>214..2<br>0  | nap |  |  | ATL8C2<br>7923:3<br>214..9<br>09 | 0.42 | g45858<br>84 | 100 | 571 |             | (AC005<br>850)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                   |     |  |  |  |                                   |      |              |     |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|-----|------|--------------|--|
| 163339 | ATU025<br>279 | ATL8C7<br>239:27<br>1..229<br>5   | nap |  |  |  | ATL8C7<br>239:27<br>1..229<br>5   | 0.42 | g14183<br>31 | 100 | 1498 | 6.6e-<br>152 | (X9590<br>9)<br>recept<br>or<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 163340 | ATU025<br>280 | ATL8C4<br>4131:2<br>480..9<br>60  | nap |  |  |  | ATL8C4<br>4131:2<br>480..1<br>113 | 0.42 | g40380<br>66 | 100 | 636  | 1.3e-<br>37  | (AC005<br>897),<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |
| 163341 | ATU025<br>281 | ATL8C2<br>9510:3<br>930..2<br>296 | nap |  |  |  | ATL8C2<br>9510:3<br>930..2<br>302 | 0.42 | g25641<br>12 | 100 | 1153 | 1.1e-<br>114 | (AF000<br>371)<br>UDP<br>glucos<br>e:flav<br>onoid<br>3-o-<br>glucos<br>yltran<br>sferas<br>e<br>[Vitis<br>vinife<br>ra] |
| 163342 | ATU025<br>282 | ATL8C3<br>62:414<br>5..547        | nap |  |  |  | ATL8C3<br>62:413<br>8..737        | 0.42 | g38343<br>18 | 100 | 625  | 4.8e-<br>54  | (AC005<br>679)<br>Simila<br>r to   |

|        |               |                                     |     |  |  |  |  |                                     |      |                               |            |               |                               |  |
|--------|---------------|-------------------------------------|-----|--|--|--|--|-------------------------------------|------|-------------------------------|------------|---------------|-------------------------------|--|
| 163343 | ATU025<br>283 | ATL8C2<br>1196:1<br>5652..<br>11711 | nap |  |  |  |  | ATL8C2<br>1196:1<br>5577..<br>11711 | 0.42 | g43253<br>51                  | 100        | 3640          | 0.0                           | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163344 | ATU025<br>284 | ATL8C2<br>1176:1<br>8..438<br>0     | nap |  |  |  |  | ATL8C2<br>1176:1<br>8..433<br>1     | 0.42 | g36953<br>97,<br>g44173<br>09 | 100,<br>62 | 1921,<br>1301 | 7.5e-<br>134,<br>7.6e-<br>132 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>446)<br>putati<br>ve pol<br>ypr   |

|        |               |                                  |     |  |  |  |  |                                   |      |              |     |      |              |  |
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| 163345 | ATU025<br>285 | ATL8C1<br>8927:3<br>856..6<br>16 | nap |  |  |  |  | ATL8C1<br>8927:3<br>856..1<br>201 | 0.42 | g31933<br>21 | 100 | 1201 | 2.3e-<br>113 | (AF069<br>299)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 163346 | ATU025<br>286 | ATL8C1<br>7235:8<br>55..28<br>09 | nap |  |  |  |  | ATL8C1<br>7235:8<br>55..28<br>09  | 0.42 | g36458<br>98 | 100 | 2622 | 6.3e-<br>240 | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possib<br>ly a<br>post-<br>transp<br>ositio<br>n<br>mutati<br>on<br>[Zea<br>mays] |
| 163347 | ATU025<br>287 | ATL8C1<br>7527:4                 | nap |  |  |  |  | ATL8C1<br>7527:8                  | 0.41 | g46801<br>80 | 100 | 2467 | 7.6e-<br>229 | (AF111<br>709)   |



|        |               |                                   |     |  |  |  |                                   |      |              |     |      |              |  |
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| 163348 | ATU025<br>288 | ATL8C2<br>34:936<br>..3065        | nap |  |  |  | 6..350<br>6                       | 0.41 | g38057<br>69 | 100 | 1875 | 2.5e-<br>175 | polypr<br>oteins<br>[Oryza<br>sativa<br>subsp.<br>indica<br>]  |
| 163349 | ATU025<br>289 | ATL8C1<br>1169:1<br>161..2<br>993 | nap |  |  |  | ATL8C1<br>1169:1<br>161..2<br>654 | 0.41 | g45672<br>96 | 100 | 2152 | 1.3e-<br>180 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163350 | ATU025<br>290 | ATL8C1<br>6347:1<br>307..2<br>55  | nap |  |  |  | ATL8C1<br>6347:1<br>274..2<br>55  | 0.41 | g43357<br>53 | 100 | 1610 | 6.4e-<br>161 | (AC006<br>284)<br>unknow<br>n<br>protein<br>[Arabi   |

|        |               |                                  |     |  |  |  |                                   |      |                               |            |              |                              |  |
|--------|---------------|----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|------------|--------------|------------------------------|--|
| 163351 | ATU025<br>291 | ATL8C1<br>6632:2<br>14..27<br>62 | nap |  |  |  | ATL8C1<br>6632:2<br>14..27<br>62  | 0.41 | g17941<br>45                  | 100        | 769          | 4.8e-<br>29                  | dopsis<br>thalia<br>nal<br>(AB000<br>505)<br>unname<br>d<br>protei<br>n<br>produc<br>t<br>[Daucu<br>s<br>carota<br>]   |
| 163352 | ATU025<br>292 | ATL8C2<br>9092:1<br>..2253       | nap |  |  |  | ATL8C2<br>9092:1<br>981..2<br>236 | 0.41 | g36680<br>81,<br>g36954<br>13 | 100,<br>82 | 275,<br>126  | 1.2e-<br>31,<br>2.6e-<br>12  | (AC004<br>667)<br>putati<br>ve<br>peptid<br>ase<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AF096<br>373)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163353 | ATU025<br>293 | ATL8C8<br>870:48<br>79..67<br>22 | nap |  |  |  | ATL8C8<br>870:50<br>05..67<br>12  | 0.40 | g32876<br>76,<br>g22447<br>60 | 100,<br>33 | 1343,<br>516 | 5.6e-<br>125,<br>3.9e-<br>35 | (AC003<br>979)<br>Contai<br>ns   |

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| 163359 | ATU025<br>299 | ATL8C3<br>1656:4<br>68..14<br>32  | nap |  |  |  |  |  |  | g46782<br>07 | 100 | 823 | 4.5e-<br>79 | (AC007<br>134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] | potass<br>ium<br>transp<br>orter,<br>HAK1<br>protei<br>n<br>gb U22<br>945<br>from<br>Schwan<br>niomyc<br>es<br>occide<br>ntalis<br>.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163360 | ATU025<br>300 | ATL8C2<br>1766:4<br>423..5<br>758 | nap |  |  |  |  |  |  | g19463<br>64 | 100 | 862 | 2.9e-<br>94 | (U9321<br>5)<br>lipase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]                                       | potass<br>ium<br>transp<br>orter,<br>HAK1<br>protei<br>n<br>gb U22<br>945<br>from<br>Schwan<br>niomyc<br>es<br>occide<br>ntalis<br>.<br>[Arabi<br>dopsis<br>thalia<br>na] |







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| 163364 | ATU025<br>304 | ATL8C3<br>7958:2<br>8..624        | nap |  |  |  |  |  |  |  |  | g28298<br>91 | 100 | 537  | 1.1e-<br>57 | (AC002<br>311)<br>Unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 163365 | ATU025<br>305 | ATL8C3<br>7778:6<br>68..22<br>60  | nap |  |  |  |  |  |  |  |  | g47411<br>99 | 100 | 1217 | 2.7e-<br>93 | (AL049<br>746)<br>putative<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 163366 | ATU025<br>306 | ATL8C1<br>6028:1<br>125..2<br>114 | nap |  |  |  |  |  |  |  |  | g44067<br>91 | 100 | 941  | 4.6e-<br>79 | (AC006<br>304)<br>hypothetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163367 | ATU025<br>307 | ATL8C4<br>6698:2<br>41..94<br>9   | nap |  |  |  |  |  |  |  |  | g45393<br>87 | 100 | 1069 | 6.1e-<br>90 | (AL035<br>526)<br>putative<br>protein<br>[Arabi<br>na]                         |





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| 163376 | ATU025<br>316 | ATL8C4<br>090:28<br>91..69<br>4  | nap |  |  |  |  |  |  |  |  |  | g16660<br>96                  | 100         | 554          | 4.6e-<br>58                  | (Y0911<br>3)<br>dioxyg<br>enase<br>[Marah<br>macro<br>arpus]  | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163377 | ATU025<br>317 | ATL8C2<br>4753:5<br>08..17<br>10 | nap |  |  |  |  |  |  |  |  |  | g45811<br>24,<br>g45899<br>54 | 100,<br>100 | 1258,<br>206 | 1.4e-<br>114,<br>4.1e-<br>28 | (AC005<br>825)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC007<br>169)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163378 | ATU025<br>318 | ATL8C1<br>0247:1<br>853..6<br>64 | nap |  |  |  |  |  |  |  |  |  | g45899<br>54                  | 100         | 711          |                              | (AC007<br>169)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |







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|        |               |                                   |     |  |  |  |  |  |  |              |     |      |              |  |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|-----|------|--------------|--|--|
| 163387 | ATU025<br>327 | ATL8C3<br>2721:2<br>445..5<br>229 | nap |  |  |  |  |  |  | g48504<br>12 | 100 | 3494 | 4.0e-<br>305 | (AC007<br>288)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]       | yanin<br>5-<br>aromat<br>ic<br>acyltr<br>ansfer<br>ase<br>[Genti<br>ana<br>triflo<br>ra] |
| 163388 | ATU025<br>328 | ATL8C2<br>0812:2<br>861..1<br>596 | nap |  |  |  |  |  |  | g39246<br>10 | 100 | 439  | 1.3e-<br>45  | (AF069<br>442)<br>putati<br>ve<br>ubiqui<br>tin-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | ve<br>aromat<br>ic<br>acyltr<br>ansfer<br>ase<br>[Genti<br>ana<br>triflo<br>ra]          |
| 163389 | ATU025<br>329 | ATL8C4<br>1194:1<br>755..7<br>60  | nap |  |  |  |  |  |  | g46789<br>26 | 100 | 613  | 1.6e-<br>51  | (AL049<br>711)<br>hypoth<br>etical   | yanin<br>5-<br>aromat<br>ic<br>acyltr<br>ansfer<br>ase<br>[Genti<br>ana<br>triflo<br>ra] |



|        |               |                                   |     |  |  |  |  |  |  |  |  |              |     |      |              |   |
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| 163390 | ATU025<br>330 | ATL8C2<br>7647:1<br>608..2<br>933 | nap |  |  |  |  |  |  |  |  | g45393<br>95 | 100 | 1752 |              | prote<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AL035<br>526)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163391 | ATU025<br>331 | ATL8C5<br>0082:4<br>791..3<br>621 | nap |  |  |  |  |  |  |  |  | g35823<br>22 | 100 | 1340 | 1.6e-<br>118 | (AC005<br>496)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163392 | ATU025<br>332 | ATL8C2<br>1405:1<br>311..6<br>66  | nap |  |  |  |  |  |  |  |  | g33954<br>36 | 100 | 203  | 1.2e-<br>08  | (AC004<br>683)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163393 | ATU025<br>333 | ATL8C3<br>2388:5<br>415..3<br>634 | nap |  |  |  |  |  |  |  |  | g36953<br>97 | 100 | 2022 | 3.7e-<br>202 | (AF096<br>372)<br>No<br>defini  |

|        |               |                                  |     |  |                            |      |              |    |     |              |  |     |             |   |
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| 163394 | ATU025<br>334 | ATL8C6<br>984:18<br>42..10<br>60 | nap |  |                            |      |              |    |     | g13620<br>16 | 100  | 587 | 1.2e-<br>51 | zinc<br>finger<br>protei<br>n 3 -<br>Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163395 | ATU025<br>335 | ATL8C1<br>0896:9<br>3..112<br>0  | nap |  |                            |      |              |    |     | g45859<br>24 | 100  | 655 | 2.2e-<br>70 | (AC007<br>211)<br>hypoht<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 163396 | ATU025<br>336 | ATL8S2<br>1725:1<br>3..573       | nap |  | ATL8S2<br>1725:1<br>3..382 | 1.00 | g11731<br>72 | 99 | 363 | 1.4e-<br>32  | RIBOSO<br>ME<br>RECYCL<br>ING<br>FACTOR<br>(RIBOS<br>OME<br>RELEAS<br>ING<br>FACTOR<br>) |     |             |   |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |     |      |              |   |   |
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| 163397 | ATU025<br>337 | ATL8C4<br>8313:4<br>089..1<br>328 | nap |  |  |  |  |  |  |  |  |  | g22448<br>64 | 100 | 2808 | 9.3e-<br>218 | (Z9733<br>7)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  | (RRE)<br>[Haemo<br>philus<br>influe<br>ntiae<br>Rd]   |
| 163398 | ATU025<br>338 | ATL8C3<br>8148:1<br>561..4<br>24  | nap |  |  |  |  |  |  |  |  |  | g26186<br>92 | 100 | 761  | 2.5e-<br>86  | (AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | (AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163399 | ATU025<br>339 | ATL8C1<br>637:33<br>37..22<br>37  | nap |  |  |  |  |  |  |  |  |  | g44540<br>27 | 100 | 825  | 1.6e-<br>88  | (AL035<br>394)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    | (AL035<br>394)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 163400 | ATU025<br>340 | ATL8C1<br>4727:5                  | nap |  |  |  |  |  |  |  |  |  | g44328<br>02 | 100 | 4393 | 0.0          | (AC006<br>437)  | (AC006<br>437)  |

[illegible]

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|        |               | 146...8<br>606                    |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  | putative polyprotein, 5' partial [Arabidopsis thaliana]    |
| 163401 | ATU025<br>341 | ATL8C1<br>0967:4<br>461..2<br>038 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AF147259)<br>F10A2.17 gene product [Arabidopsis thaliana] |
| 163402 | ATU025<br>342 | ATL8C2<br>1296:5<br>17..13<br>32  | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC004077)<br>hypothetical protein [Arabidopsis thaliana]  |
| 163403 | ATU025<br>343 | ATL8C2<br>4361:1<br>425..4<br>511 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AF076275)<br>containing ns similarity to Arabid           |

[illegible]

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| 163404 | ATU025<br>344 | ATL8C1<br>7072:1<br>..3631       | nap |  |  |  |  |  |  | g13620<br>10,<br>g22450<br>09 | 100,<br>49 | 1422,<br>616 | 1.5e-<br>144,<br>4.9e-<br>68 | ubiqui<br>tin-<br>like<br>protei<br>n 9 -<br>Arabid<br>opsis<br>thalia<br>na [];<br>(Z9734<br>1)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 163405 | ATU025<br>345 | ATL8C4<br>9487:3<br>58..15<br>57 | nap |  |  |  |  |  |  | g41851<br>29                  | 100        | 819          | 2.0e-<br>62                  | (AC005<br>724)<br>unknow<br>n protei<br>n [Arabi<br>dopsis<br>thalia<br>na]   |

|        |               |                                  |     |  |  |  |  |  |  |              |     |      |  |  |
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| 163406 | ATU025<br>346 | ATL8C1<br>0977:1<br>33..14<br>53 | nap |  |  |  |  |  |  | g41917<br>95 | 100 | 829  | 5.3e-<br>76  | thalia<br>na]<br>(AC005<br>917)<br>putati<br>ve<br>zinc<br>finger<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163407 | ATU025<br>347 | ATL8C2<br>217:30<br>61..11<br>48 | nap |  |  |  |  |  |  | g42630<br>63 | 100 | 1883 | 4.6e-<br>173   | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163408 | ATU025<br>348 | ATL8C1<br>0270:2<br>007..1<br>95 | nap |  |  |  |  |  |  | g36458<br>98 | 100 | 2502 | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possib<br>ly a<br>post-<br>transp<br>ositio<br>n<br>mutati<br>on<br>[Zea<br>mays] |  |









|        |               |                                   |     |  |  |  |  |  |  |              |     |      |             |   |
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| 163421 | ATU025<br>361 | ATL8C3<br>7426:2<br>246..4<br>000 | nap |  |  |  |  |  |  | g37859<br>80 | 100 | 2379 |             | serine<br>/threo<br>nine<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163422 | ATU025<br>362 | ATL8C3<br>0046:3<br>669..4<br>380 | nap |  |  |  |  |  |  | g44327<br>95 | 100 | 826  | 6.2e-<br>40 | (AC005<br>560)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163423 | ATU025        | ATL8C2                            | nap |  |  |  |  |  |  | g43253       | 100 | 4055 | 0.0         | (AC006<br>437)<br>putati<br>ve<br>protei<br>n 2 of<br>of the<br>En/Spm<br>transp<br>osable<br>elemen<br>t<br>system<br>of Zea<br>mays<br>[Arabi<br>dopsis<br>thalia<br>nal] |

|        |               |                                  |     |  |  |  |  |  |  |              |     |      |             |  |   |
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| 163424 | ATU025<br>364 | ATL8C4<br>6796:1<br>653..4<br>23 | nap |  |  |  |  |  |  | g45858<br>84 | 100 | 466  | 4.4e-<br>51 | (AC005<br>850)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal | 394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 163425 | ATU025<br>365 | ATL8C4<br>5079:1<br>394..4<br>89 | nap |  |  |  |  |  |  | g28530<br>85 | 100 | 1250 | 1.3e-<br>77 | (AL021<br>768)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal     |   |
| 163426 | ATU025        | ATL8C5                           | nap |  |  |  |  |  |  | g28528       | 100 | 654  | 6.0e-       | Flavon   |   |

|        |               |                                   |     |  |  |  |  |  |  |              |     |      |              |   |  |
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|        | 366           | 006:27<br>52..17<br>75            |     |  |  |  |  |  |  | 6            |     |      |              | 67  | ol 4'-<br>sulfot<br>ransfe<br>rase -<br>Flaver<br>ia<br>chlora<br>efolia<br>[] |
| 163427 | ATU025<br>367 | ATL8C8<br>244:63<br>5..239<br>9   | nap |  |  |  |  |  |  | g21911<br>42 | 100 | 1580 | 1.0e-<br>168 | (AF007<br>269)<br>A IG00<br>2N01.2<br>7 gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>nal] |  |
| 163428 | ATU025<br>368 | ATL8C3<br>1428:1<br>485..1<br>5   | nap |  |  |  |  |  |  | g34136<br>98 | 100 | 1758 | 2.4e-<br>181 | (AC004<br>747)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]           |  |
| 163429 | ATU025<br>369 | ATL8C2<br>9472:1<br>758..2<br>470 | nap |  |  |  |  |  |  | g44327<br>95 | 100 | 849  | 5.6e-<br>46  | (AC006<br>437)<br>putati<br>ve<br>protei<br>n 2 of<br>of the<br>En/Spm<br>transp<br>osable        |  |



|        |               |                                   |     |  |  |  |  |              |     |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--------------|-----|------|--------------|---|
| 163433 | ATU025<br>373 | ATL8C8<br>543:13<br>94..29<br>9   | nap |  |  |  |  | 943372<br>08 | 100 | 931  | 4.0e-<br>91  | (AC006<br>403)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163434 | ATU025<br>374 | ATL8C1<br>6392:2<br>808..1<br>828 | nap |  |  |  |  | g33414<br>68 | 100 | 334  | 1.5e-<br>21  | (AJ009<br>594)<br>Dof<br>zinc<br>finger<br>protei<br>n<br>[Nicot<br>iana<br>tabacu<br>m]  |
| 163435 | ATU025<br>375 | ATL8C4<br>7563:1<br>854..5<br>03  | nap |  |  |  |  | g26424<br>51 | 100 | 2052 | 5.9e-<br>195 | (AC002<br>391)<br>putati<br>ve<br>indole<br>-3-<br>acetat<br>e<br>beta-<br>glucos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163436 | ATU025<br>376 | ATL8C1<br>1164:5                  | nap |  |  |  |  | g35102<br>54 | 100 | 1338 | 9.8e-<br>126 | (AC005<br>310)  |







|        |               |                                   |     |  |  |  |  |  |  |              |     |      |              |   |
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| 163444 | ATU025<br>384 | ATL8C2<br>5619:3<br>3..107<br>6   | nap |  |  |  |  |  |  | 936500<br>34 | 100 | 1445 | 1.7e-<br>132 | thalia<br>nal<br>(AC005<br>396)<br>putati<br>ve<br>flavon<br>ol<br>sulfot<br>ransfe<br>rase<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163445 | ATU025<br>385 | ATL8C1<br>978:13<br>8..124<br>1   | nap |  |  |  |  |  |  | g10417<br>08 | 100 | 658  | 2.7e-<br>72  | (U3048<br>1)<br>expans<br>in At-<br>EXP2<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163446 | ATU025<br>386 | ATL8C5<br>95:168<br>7..536        | nap |  |  |  |  |  |  | g22450<br>79 | 100 | 614  | 3.5e-<br>58  | (Z9734<br>3)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163447 | ATU025<br>387 | ATL8C3<br>6341:8<br>138..3<br>911 | nap |  |  |  |  |  |  | g42104<br>23 | 100 | 714  | 6.1e-<br>57  | (AL035<br>331)<br>/predi<br>ction=<br>ction=<br>(metho<br>d:;   |





163454 163455 163456 163457

|        |               |                                   |     |  |  |  |  |  |  |  |              |     |      |              |  |
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| 163454 | ATU025<br>394 | ATL8C4<br>1506:3<br>248..1<br>287 | nap |  |  |  |  |  |  |  | g46783<br>48 | 100 | 1733 | 5.0e-<br>176 | [Arabi<br>dopsis<br>thalia<br>na]  |
| 163455 | ATU025<br>395 | ATL8C1<br>4072:4<br>207..3<br>542 | nap |  |  |  |  |  |  |  | g25007<br>17 | 100 | 470  | 1.6e-<br>43  | STS14<br>PROTEI<br>N<br>PRECUR<br>SOR<br>[Solana<br>um<br>tubero<br>sum]   |
| 163456 | ATU025<br>396 | ATL8C2<br>0746:2<br>423..5<br>273 | nap |  |  |  |  |  |  |  | g43253<br>48 | 100 | 2061 | 2.9e-<br>143 | (AF128<br>394)<br>contai<br>ns<br>simila<br>rity<br>to<br>phosph<br>ate<br>transp<br>orters<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163457 | ATU025<br>397 | ATL8C2<br>2146:2                  | nap |  |  |  |  |  |  |  | g32490<br>67 | 100 | 468  | 1.3e-<br>46  | (AC004<br>473)   |















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| 163477 | ATU025<br>417 | ATL8C1<br>4029:5<br>033..4<br>380 | nap |  |  |  |  |  |  | g40380<br>66                  | 100        | 578           | 4.2e-<br>26                   | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC005<br>897)<br>hypothe-<br>tical<br>protein<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163478 | ATU025<br>418 | ATL8C5<br>0163:5<br>083..9<br>07  | nap |  |  |  |  |  |  | g45672<br>95,<br>g33193<br>60 | 100,<br>54 | 1677,<br>1612 | 7.5e-<br>173,<br>4.1e-<br>135 | (AC006<br>918)<br>putative<br>polypro-<br>tein<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AF077<br>408)<br>contains<br>similarity<br>to<br>Vicia<br>fabarotrans-<br>poson-like<br>gene<br>(GB:AB |

|        |               |                                   |     |  |  |  |  |  |  |  |  |                               |            |              |                              |   |
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| 163479 | ATU025<br>419 | ATL8C4<br>4409:1<br>711..2<br>30  | nap |  |  |  |  |  |  |  |  | g30470<br>93,<br>g47739<br>19 | 100,<br>59 | 1142,<br>201 | 6.0e-<br>109,<br>1.9e-<br>08 | 007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163480 | ATU025<br>420 | ATL8C4<br>1794:2<br>953..2<br>280 | nap |  |  |  |  |  |  |  |  | g40380<br>66                  | 100        | 746          | 1.4e-<br>20                  | (AF058<br>826)<br>T26D22<br>.5<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163481 | ATU025<br>421 | ATL8C9<br>324:11                  | nap |  |  |  |  |  |  |  |  | g38508<br>16                  | 100        | 990          | 3.7e-<br>76                  | (AC005<br>897)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                   |     |  |  |  |  |  |  |  |  |                               |            |              |                              | (Y1834<br>8) U2   |



|        |               |                                   |     |  |  |  |  |  |  |              |     |      |              |  |
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| 163484 | ATU025<br>424 | ATL8C4<br>9779:2<br>114..4<br>332 | nap |  |  |  |  |  |  | g41153<br>76 | 100 | 1679 | 2.7e-<br>152 | (AC005<br>967)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 163485 | ATU025<br>425 | ATL8C3<br>9163:3<br>902..4<br>588 | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 444  | 7.2e-<br>22  | (AC005<br>897)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163486 | ATU025<br>426 | ATL8C1<br>9586:1<br>362..5<br>01  | nap |  |  |  |  |  |  | g32978<br>13 | 100 | 278  | 4.1e-<br>19  | (AL031<br>032)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163487 | ATU025<br>427 | ATL8C2<br>28:740<br>7..811<br>2   | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 589  | 5.4e-<br>33  | (AC005<br>897)<br>hypoth<br>etical   |



[illegible]

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|-----|------|--------------|--|
| 163491 | ATU025<br>431 | ATL8C7<br>680:10<br>55..23<br>49  | nap |  |  |  |  |  |  | g33778<br>36 | 100 | 539  | 2.7e-<br>62  | thalia<br>nal<br>(AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>es<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163492 | ATU025<br>432 | ATL8C4<br>1836:1<br>357..2<br>241 | nap |  |  |  |  |  |  | g26513<br>06 | 100 | 1355 | 2.3e-<br>134 | (AC002<br>336)<br>putati<br>ve<br>serine<br>/threo<br>nine<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>nal]                              |
| 163493 | ATU025<br>433 | ATL8C4<br>2312:1<br>03..10<br>13  | nap |  |  |  |  |  |  | g45859<br>86 | 100 | 166  | 1.2e-<br>13  | (AC005<br>287)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis  |



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| 163494 | ATU025<br>434 | ATL8C1<br>3940:1<br>0609..<br>12484 | nap |  |  |  |  |  |  |  |  | g45672<br>96                  | 100        | 1641        | 1.2e-<br>156 | thalia<br>na]<br>(AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163495 | ATU025<br>435 | ATL8C1<br>0126:1<br>..1373          | nap |  |  |  |  |  |  |  |  | g42621<br>75,<br>g43357<br>20 | 100,<br>39 | 159,<br>407 |              | (AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e Tal-<br>1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163496 | ATU025<br>436 | ATL8C3<br>3167:1<br>173..2          | nap |  |  |  |  |  |  |  |  | g31766<br>79                  | 100        | 676         | 5.2e-<br>75  | (AC003<br>671)<br>F1707.   |

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| 163497 | ATU025<br>437 | ATL8C7<br>742:38<br>66..31<br>29  | nap |  |  |  |  |  |  |  |  |  | g40380<br>66 | 100 | 469  | 3.1e-<br>31  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            | 8<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163498 | ATU025<br>438 | ATL8C1<br>3940:6<br>602..8<br>669 | nap |  |  |  |  |  |  |  |  |  | g45860<br>66 | 100 | 2234 | 9.9e-<br>224 | (AC006<br>194)<br>putati<br>ve pol<br>ypr<br>otei<br>n,<br>3'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 163499 | ATU025<br>439 | ATL8C4<br>4442:1<br>672..3<br>016 | nap |  |  |  |  |  |  |  |  |  | g44552<br>03 | 100 | 987  | 7.8e-<br>97  | (AL035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                |  |
| 163500 | ATU025<br>440 | ATL8C1<br>687:76                  | nap |  |  |  |  |  |  |  |  |  | g45858<br>81 | 100 | 1918 | 7.6e-<br>196 | (AC005<br>850)<br>[Arabi<br>dopsis<br>thalia<br>na]   |  |

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| 163501 | ATU025<br>441 | 1..195<br>7                      | nap |  |  |  |  |  |  |  |  | 940380<br>66 | 100 | 620  | 5.5e-<br>42 | Hypothetical protein [Arabidopsis thaliana] (AC005897)                      |
| 163502 | ATU025<br>442 | ATL8C1<br>632:42<br>09..35<br>52 | nap |  |  |  |  |  |  |  |  | 945672<br>96 | 100 | 2469 |             | Hypothetical protein [Arabidopsis thaliana] (AC006918)                      |
| 163503 | ATU025<br>443 | ATL8C1<br>7576:1<br>625..5<br>79 | nap |  |  |  |  |  |  |  |  | 932192<br>73 | 100 | 636  | 2.5e-<br>69 | putative Athila retroelement ORF1 protein [Arabidopsis thaliana] (AB015316) |

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| 163504 | ATU025<br>444 | ATL8C3<br>5923:5<br>11..19<br>09  | nap |  |  |  |  |  |  | g11736<br>24 | 100 | 1355 | 3.5e-<br>145 | thalia<br>na]<br>(U3474<br>4)<br>cytoch<br>rome<br>P-450<br>[Phala<br>enopsi<br>s sp.<br>'hybri<br>d<br>SM9108<br>'.] |
| 163505 | ATU025<br>445 | ATL8C1<br>0471:1<br>817..6<br>117 | nap |  |  |  |  |  |  | g45126<br>18 | 100 | 4511 |              | (AC004<br>793)<br>Strong<br>simila<br>rity<br>to [.]  |
| 163506 | ATU025<br>446 | ATL8C1<br>9367:2<br>863..1<br>769 | nap |  |  |  |  |  |  | g45570<br>64 | 100 | 772  | 4.4e-<br>48  | (AC007<br>045)<br>hypoht<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 163507 | ATU025<br>447 | ATL8C4<br>0590:3<br>952..4<br>794 | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 709  | 5.4e-<br>33  | (AC005<br>897)<br>hypoht<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                |



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|        |               |                                   |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | hydrolase (containing esterases/lipase/thioesterase active site serine domain) protein: PS50187 [Arabidopsis thaliana] |
| 163510 | ATU025<br>450 | ATL8C2<br>3740:2<br>275..1<br>163 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC007169)<br>hypothetical protein [Arabidopsis thaliana]  |
|        |               |                                   |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC005897)<br>hypothetical protein [Arabidopsis thaliana]  |
| 163511 | ATU025<br>451 | ATL8C1<br>9329:6<br>45..14<br>21  | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC005897)<br>hypothetical protein [Arabidopsis thaliana]  |









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| 163523 | ATU025<br>463 | ATL8C4<br>6125:3<br>241..4<br>015 | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 648  | 8.1e-<br>35  | ve<br>zinc-<br>finger<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 163524 | ATU025<br>464 | ATL8C1<br>232:27<br>00..49<br>13  | nap |  |  |  |  |  |  | g36873<br>01 | 100 | 1214 | 1.8e-<br>130 | (AJ006<br>376)<br>subtil<br>isin-<br>like<br>protea<br>se<br>[Lycop<br>ersico<br>n<br>escule<br>ntum] |
| 163525 | ATU025<br>465 | ATL8C1<br>4524:3<br>149..4<br>264 | nap |  |  |  |  |  |  | g27087<br>51 | 100 | 484  | 3.7e-<br>60  | (AC003<br>952)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                    |

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| 163526 | ATU025<br>466 | ATL8C3<br>846:31<br>01..49<br>0   | nap |  |  |  |  |  |  | g45811<br>64 | 100 | 1500 | 3.6e-<br>160 | na]<br>(AC006<br>220)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 163527 | ATU025<br>467 | ATL8C2<br>3904:1<br>831..2<br>1   | nap |  |  |  |  |  |  | g45672<br>96 | 100 | 2241 | 3.9e-<br>200 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163528 | ATU025<br>468 | ATL8C3<br>4012:3<br>442..2<br>632 | nap |  |  |  |  |  |  | g42621<br>75 | 100 | 783  | 4.4e-<br>76  | (AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163529 | ATU025<br>469 | ATL8C4<br>0267:1<br>092..9<br>0   | nap |  |  |  |  |  |  | g21911<br>96 | 100 | 574  | 1.1e-<br>59  | (AF007<br>271)<br>contai<br>ns a<br>MADS<br>domain<br>[Arabi<br>dopsis   |

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| 163530 | ATU025<br>470 | ATL8C4<br>3877:1<br>897..1<br>223 | nap |  |  |  |  |  |  | g48862<br>86 | 100 | 757  |              | thalia<br>nal<br>(AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163531 | ATU025<br>471 | ATL8C1<br>6916:3<br>556..2<br>485 | nap |  |  |  |  |  |  | g21911<br>58 | 100 | 606  | 5.0e-<br>59  | (AF007<br>270)<br>contai<br>ns<br>simila<br>rity<br>to A.<br>thalia<br>na<br>zinc<br>finger<br>protei<br>n<br>(PID:g<br>976277<br>)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163532 | ATU025<br>472 | ATL8C2<br>3904:6<br>710..4<br>272 | nap |  |  |  |  |  |  | g47739<br>20 | 100 | 3224 | 1.4e-<br>303 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi   |



|        |               |                                    |     |  |  |  |  |  |  |  |  |                               |            |               |                               |  |
|--------|---------------|------------------------------------|-----|--|--|--|--|--|--|--|--|-------------------------------|------------|---------------|-------------------------------|--|
| 163537 | ATU025<br>477 | ATL8C2<br>4098:4<br>961..3<br>904  | nap |  |  |  |  |  |  |  |  | g41851<br>44                  | 100        | 686           | 1.9e-<br>71                   | dopsis<br>thalia<br>nal<br>(AC005<br>724)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163538 | ATU025<br>478 | ATL8C1<br>3624:1<br>0149..<br>4789 | nap |  |  |  |  |  |  |  |  | g43253<br>48,<br>930470<br>73 | 100,<br>78 | 2056,<br>1762 | 1.3e-<br>142,<br>1.4e-<br>142 | (AF128<br>394)<br>contai<br>ns<br>simila<br>rity<br>to<br>phosph<br>ate<br>transp<br>orters<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AF058<br>825)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrot<br>ranspo<br>son-<br>like<br>protei |

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| 163539 | ATU025<br>479 | ATL8C3<br>9540:2<br>21..22<br>89 | nap |  |  |  |  |  |  |  |  | g45860<br>66 | 100 | 2383 | 2.7e-<br>221 | ns<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163540 | ATU025<br>480 | ATL8C3<br>0398:3<br>09..13<br>93 | nap |  |  |  |  |  |  |  |  | g44173<br>07 | 100 | 1472 | 1.8e-<br>143 | (AC006<br>446)<br>putati<br>ve pol<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163541 | ATU025<br>481 | ATL8C1<br>3069:1<br>782..5<br>03 | nap |  |  |  |  |  |  |  |  | g45126<br>31 | 100 | 502  | 6.2e-<br>34  | (AC004<br>793)<br>Contai<br>ns<br>simila<br>rity<br>to<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163542 | ATU025        | ATL8C1                           | nap |  |  |  |  |  |  |  |  | g44552       | 100 | 236  | 6.6e-        | (AL035  |





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| 163546 | ATU025<br>486 | ATL8C3<br>0514:7<br>75..35<br>51 | nap |  |  |  |  |  |  | g15527<br>59,<br>g10015<br>69 | 100,<br>93 | 216,<br>148 | 8.8e-<br>17,<br>5.8e-<br>15 | dopsis<br>thalia<br>na]<br>(U7021<br>4)<br>lipid<br>A<br>disacc<br>haride<br>syntha<br>se<br>[Esche<br>richia<br>coli];<br>(D6400<br>0)<br>lipid<br>A<br>disacc<br>haride<br>syntha<br>se<br>[Synec<br>hocyst<br>is<br>sp.] |
| 163547 | ATU025<br>487 | ATL8C4<br>580:11<br>47..18<br>38 | nap |  |  |  |  |  |  | g46782<br>00                  | 100        | 1050        | 8.2e-<br>101                | (AC007<br>134)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL049<br>480)<br>putati<br>ve  |
| 163548 | ATU025<br>488 | ATL8C6<br>817:58<br>02..40<br>15 | nap |  |  |  |  |  |  | g45392<br>93                  | 100        | 1169        | 3.7e-<br>109                |   |



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| 163552 | ATU025<br>492 | ATL8C1<br>1726:1<br>706..3<br>33 | nap |  |  |  |  |  |  | g22447<br>73 | 100 | 2041 | 9.8e-<br>125 | 23)<br>[Esche<br>richia<br>coli]<br>(Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163553 | ATU025<br>493 | ATL8C3<br>5068:1<br>696..1<br>74 | nap |  |  |  |  |  |  | g28646<br>26 | 100 | 1705 | 2.6e-<br>164 | (AL021<br>811)<br>cytoch<br>rome<br>p450 -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                   |
| 163554 | ATU025<br>494 | ATL8C2<br>4700:2<br>57..92<br>7  | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 687  | 2.4e-<br>59  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 163555 | ATU025<br>495 | ATL8C3<br>5064:2<br>436..3<br>56 | nap |  |  |  |  |  |  | g45314<br>41 | 100 | 1662 | 1.4e-<br>165 | (AC006<br>224)<br>putati<br>ve  |



[illegible]

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| 163557 | ATU025<br>497 | ATL8C3<br>681:11<br>023..1<br>0412 | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 742  | 1.0e-<br>34  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | ) and<br>a DDE<br>integr<br>ase<br>signat<br>ure<br>motif<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163558 | ATU025<br>498 | ATL8C4<br>590:48<br>1..131<br>7    | nap |  |  |  |  |  |  | g34452<br>06 | 100 | 1409 | 2.1e-<br>143 | (AC004<br>786)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |  |
| 163559 | ATU025<br>499 | ATL8C1<br>0460:1<br>271..1<br>14   | nap |  |  |  |  |  |  | g32528<br>16 | 100 | 971  |              | (AC004<br>705)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |



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| 163564 | ATU025<br>504 | ATL8C1<br>3538:5<br>143..3<br>794 | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 536 | 5.6e-<br>30 | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163565 | ATU025<br>505 | ATL8C1<br>3534:8<br>074..6<br>923 | nap |  |  |  |  |  |  | g27087<br>51 | 100 | 748 | 1.0e-<br>72 | (AC003<br>952)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163566 | ATU025<br>506 | ATL8C3<br>9696:9<br>67..21<br>9   | nap |  |  |  |  |  |  | g49143<br>60 | 100 | 334 | 9.5e-<br>31 | (AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163567 | ATU025<br>507 | ATL8C3<br>230:10<br>177..9<br>085 | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 414 | 1.3e-<br>22 | (AC005<br>897)<br>hypoth<br>etical   |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |     |     |              |   |
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| 163568 | ATU025<br>508 | ATL8C1<br>3499:1<br>584..9<br>54  | nap |  |  |  |  |  |  |  |  |  | g40380<br>66 | 100 | 623 | 7.4e-<br>47  | prote<br>n [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 163569 | ATU025<br>509 | ATL8C1<br>3071:9<br>85..16<br>54  | nap |  |  |  |  |  |  |  |  |  | g40380<br>66 | 100 | 692 | 2.9e-<br>33  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]   |
| 163570 | ATU025<br>510 | ATL8C1<br>0925:8<br>101..5<br>797 | nap |  |  |  |  |  |  |  |  |  | g45809<br>90 | 100 | 652 | 2.5e-<br>69  | (AFI20<br>335)<br>putati<br>ve transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>340)<br>putati<br>ve               |
| 163571 | ATU025<br>511 | ATL8C3<br>6998:5<br>26..19<br>05  | nap |  |  |  |  |  |  |  |  |  | g43143<br>56 | 100 | 992 | 9.1e-<br>104 | (AC006<br>340)<br>putati<br>ve  |



|        |               |                                   |     |  |  |  |  |  |  |              |     |      |              |   |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|-----|------|--------------|---|--|
| 163572 | ATU025<br>512 | ATL8C1<br>2682:1<br>989..4<br>009 | nap |  |  |  |  |  |  | g28298<br>96 | 100 | 1740 | 4.2e-<br>190 | (AC002<br>311)<br>highly<br>simila<br>r to<br>auxin-<br>regula<br>ted<br>protei<br>n GH3,<br>gpIX60<br>033 18<br>591<br>[Arabi<br>dopsis<br>thalia<br>na] | anthoc<br>yanidi<br>n-3-<br>glucos<br>ide<br>rhanno<br>syltra<br>nsfera<br>se<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163573 | ATU025<br>513 | ATL8C2<br>6229:2<br>041..3<br>62  | nap |  |  |  |  |  |  | g46782<br>85 | 100 | 1413 | 1.6e-<br>147 | (AL049<br>660)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  | anthoc<br>yanidi<br>n-3-<br>glucos<br>ide<br>rhanno<br>syltra<br>nsfera<br>se<br>[Arabi<br>dopsis<br>thalia<br>na] |





|        |               |                                   |     |  |  |  |  |  |  |              |     |      |              |   |
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| 163581 | ATU025<br>521 | ATL8C2<br>6245:2<br>669..1<br>179 | nap |  |  |  |  |  |  | g46436<br>5  | 100 | 946  | 5.2e-<br>94  | PEROXI<br>DASE<br>P7 []   |
| 163582 | ATU025<br>522 | ATL8C2<br>0329:1<br>478..1        | nap |  |  |  |  |  |  | g27389<br>98 | 100 | 1149 | 1.7e-<br>120 | (AF022<br>458)<br>CYP98A<br>2p<br>[Glyci<br>ne<br>max]                                  |
| 163583 | ATU025<br>523 | ATL8C1<br>591:45<br>68..31<br>74  | nap |  |  |  |  |  |  | g43888<br>23 | 100 | 822  | 3.6e-<br>61  | (AC006<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163584 | ATU025<br>524 | ATL8C1<br>3447:2<br>062..6<br>44  | nap |  |  |  |  |  |  | g10765<br>57 | 100 | 310  | 1.6e-<br>11  | extens<br>in-<br>like<br>protei<br>n -<br>cowpea<br>(fragm<br>ent)<br>[]                |
| 163585 | ATU025<br>525 | ATL8C2<br>4889:2<br>043..6<br>94  | nap |  |  |  |  |  |  | g34452<br>10 | 100 | 1516 | 2.6e-<br>160 | (AC004<br>786)<br>putati<br>ve<br>flavon<br>ol 3-<br>o-<br>glucos<br>yltran             |







|        |               |                                  |     |  |  |  |  |  |  |  |                                 |      |              |     |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|---------------------------------|------|--------------|-----|------|-------------|--|
| 163596 | ATU025<br>536 | ATL8C7<br>310:19<br>15..11<br>82 | nap |  |  |  |  |  |  |  |                                 |      | g45672<br>04 | 100 | 333  | 1.9e-<br>24 | (AC007<br>168)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 163597 | ATU025<br>537 | ATL8C7<br>318:54<br>..1951       | nap |  |  |  |  |  |  |  |                                 |      | g46782<br>17 | 100 | 254  | 1.6e-<br>41 | (AC007<br>134)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163598 | ATU025<br>538 | ATL8C1<br>7999:1<br>40..71<br>2  | nap |  |  |  |  |  |  |  | ATL8C1<br>7999:1<br>40..70<br>9 | 1.00 | g45845<br>32 | 99  | 309  |             | (AL049<br>608)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163599 | ATU025<br>539 | ATL8C4<br>3690:2<br>591..5<br>13 | nap |  |  |  |  |  |  |  |                                 |      | g22449<br>16 | 100 | 1583 |             | (Z9733<br>9)<br>hypoth<br>etical   |







|        |               |                                   |     |  |  |  |  |  |  |  |  |              |     |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|-----|------|--------------|---|
| 163607 | ATU025<br>547 | ATL8C3<br>688:88<br>3..328<br>5   | nap |  |  |  |  |  |  |  |  | g47739<br>20 | 100 | 3066 | 1.2e-<br>302 | [Arabi<br>dopsis<br>thalia<br>na]   |
| 163608 | ATU025<br>548 | ATL8C1<br>4453:1<br>216..2<br>745 | nap |  |  |  |  |  |  |  |  | g45389<br>95 | 100 | 1824 | 6.3e-<br>197 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 163609 | ATU025<br>549 | ATL8C4<br>1777:4<br>092..4<br>746 | nap |  |  |  |  |  |  |  |  | g40380<br>66 | 100 | 559  | 7.9e-<br>18  | (AL049<br>481)<br>hypoth<br>etical<br>protei<br>n<br>(prøba<br>bly<br>remnan<br>t)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163610 | ATU025        | ATL8C1                            | nap |  |  |  |  |  |  |  |  | g42205       | 100 | 139  | 4.7e-        | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |
|        |               |                                   |     |  |  |  |  |  |  |  |  |              |     |      |              | (AL035)   |















|        |               |                                   |     |  |  |  |  |  |  |              |     |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|-----|------|--------------|---|
| 163631 | ATU025<br>571 | ATL8C3<br>424:97<br>1..212<br>2   | nap |  |  |  |  |  |  | g41159<br>16 | 100 | 454  | 2.6e-<br>35  | na]<br>(AF118<br>222)<br>F3H7.9<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163632 | ATU025<br>572 | ATL8C4<br>074:56<br>3..127<br>7   | nap |  |  |  |  |  |  | g40380<br>66 | 100 | 636  | 5.2e-<br>34  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 163633 | ATU025<br>573 | ATL8C1<br>2594:1<br>021..2<br>112 | nap |  |  |  |  |  |  | g44540<br>27 | 100 | 1069 | 6.8e-<br>108 | (Al035<br>394)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 163634 | ATU025<br>574 | ATL8C1<br>6796:6<br>87..16<br>55  | nap |  |  |  |  |  |  | g46782<br>07 | 100 | 981  | 2.0e-<br>90  | (AC007<br>134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e                      |







|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |     |             |  |                                   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|-----------------------------------|
| 163645 | ATU025<br>585 | ATL8S2<br>0838:3<br>01..71       | nap |  |  |  |  |  | ATL8S2<br>0838:2<br>74..71       | 0.99 | g13383<br>6  | 99 | 277 | 1.6e-<br>23 | 30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S18<br>[Esche<br>richia<br>coli]                   | [Arabi<br>dopsis<br>thalia<br>na] |
| 163646 | ATU025<br>586 | ATL8S9<br>76:566<br>..119        | nap |  |  |  |  |  | ATL8S9<br>76:414<br>..119        | 0.99 | g46626<br>49 | 99 | 540 | 3.2e-<br>55 | (AC006<br>419)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |                                   |
| 163647 | ATU025<br>587 | ATL8C9<br>450:15<br>04..85<br>3  | nap |  |  |  |  |  | ATL8C9<br>450:14<br>65..85<br>3  | 0.98 | g47339<br>77 | 99 | 458 | 2.2e-<br>43 | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |                                   |
| 163648 | ATU025<br>588 | ATL8C4<br>0830:1<br>409..7<br>19 | nap |  |  |  |  |  | ATL8C4<br>0830:1<br>206..7<br>19 | 0.98 | g44067<br>63 | 99 | 276 | 9.4e-<br>19 | (AC006<br>836)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |                                   |

|        |                |                                  |     |  |  |  |                                  |      |              |    |      |  |
|--------|----------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--|
| 163649 | ATU025<br>589' | ATL8C1<br>0688:1<br>305..7<br>3  | nap |  |  |  | ATL8C1<br>0688:1<br>024..7<br>3  | 0.98 | g33416<br>99 | 99 | 1396 | thalia<br>na]<br>(AC003<br>672)<br>putati<br>ve<br>gibere<br>llin<br>beta-<br>hydrox<br>ylase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163650 | ATU025<br>590  | ATL8C3<br>4983:1<br>33..85<br>1  | nap |  |  |  | ATL8C3<br>4983:2<br>08..85<br>1  | 0.98 | g30804<br>39 | 99 | 110  | 5.3e-<br>05<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163651 | ATU025<br>591  | ATL8C1<br>1697:1<br>204..1<br>19 | nap |  |  |  | ATL8C1<br>1697:1<br>204..2<br>74 | 0.97 | g29822<br>93 | 99 | 226  | 5.8e-<br>11<br>ISP42-<br>like<br>protei<br>n<br>[Picea<br>marian<br>a]   |
| 163652 | ATU025<br>592  | ATL8C4<br>6705:6<br>33..38<br>4  | nap |  |  |  | ATL8C4<br>6705:6<br>33..43<br>9  | 0.97 | g34510<br>73 | 99 | 177  | 5.5e-<br>07<br>putati<br>ve<br>protei<br>n<br>(AL031<br>326)   |

|        |               |                                  |     |  |  |  |  |      |                               |        |              |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|------|-------------------------------|--------|--------------|-------------|--|
| 163653 | ATU025<br>593 | ATL8C2<br>5199:3<br>837..7<br>47 | nap |  |  |  |  | 0.97 | g18711<br>79                  | 99     | 261          | 1.6e-<br>14 | [Arabi<br>dopsis<br>thalia<br>na]<br>(U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163654 | ATU025<br>594 | ATL8C4<br>3424:1<br>703..1       | nap |  |  |  |  | 0.97 | g42181<br>11,<br>g25650<br>11 | 99, 54 | 482,<br>1055 |             | (AL035<br>353)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC002<br>983)<br>putati<br>ve<br>MuDR-<br>A-like<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163655 | ATU025        | ATL8C4                           | nap |  |  |  |  | 0.97 | g30627                        | 99     | 147          | 6.7e-       | (AB010   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
|        | 595           | 3183:3<br>00..49                 |     |  |  |  |  | 3183:2<br>56..13<br>4            | 91   |              |    |     | 10          | 433)<br>Lipid<br>transf<br>er<br>protei<br>n<br>[Brass<br>ica<br>rapa]                            |
| 163656 | ATU025<br>596 | ATL8C3<br>696:13<br>79..71<br>7  | nap |  |  |  |  | ATL8C3<br>696:13<br>79..71<br>7  | 0.97 | g28298<br>97 | 99 | 170 | 3.8e-<br>16 | (AC002<br>311)<br>Unknown<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 163657 | ATU025<br>597 | ATL8C1<br>7308:1<br>01..10<br>42 | nap |  |  |  |  | ATL8C1<br>7308:1<br>01..10<br>42 | 0.97 | g34452<br>11 | 99 | 156 | 1.6e-<br>09 | (AC004<br>786)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 163658 | ATU025<br>598 | ATL8C1<br>8064:2<br>30..11<br>81 | nap |  |  |  |  | ATL8C1<br>8064:2<br>30..11<br>81 | 0.97 | g17807<br>57 | 99 | 253 | 3.1e-<br>06 | (Y1029<br>1)<br>highly<br>expres<br>sed in<br>prolif<br>eratin<br>g<br>cells<br>[Arabi<br>dopsis] |



|        |               |                                  |     |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 163663 | ATU025<br>603 | ATL8C9<br>944:87<br>0..378       | nap |  |  |  | ATL8C9<br>944:82<br>1..673       | 0.96 | g29807<br>99 | 99 | 388 | 3.4e-<br>37 | thalia<br>nal<br>(AL022<br>197)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163664 | ATU025<br>604 | ATL8C4<br>3935:1<br>671..2<br>74 | nap |  |  |  | ATL8C4<br>3935:1<br>517..2<br>74 | 0.96 | g33778<br>12 | 99 | 114 | 2.6e-<br>05 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>heavy-<br>metal-<br>associ<br>ated<br>domain<br>contai<br>ning<br>protei<br>ns<br>(Pfam:<br>HMA.hm<br>,<br>score:<br>12.02)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163665 | ATU025<br>605 | ATL8C8<br>321:26<br>7..131       | nap |  |  |  | ATL8C8<br>321:26<br>7..129       | 0.96 | g44689<br>82 | 99 | 576 | 4.3e-<br>49 | (AL035<br>605)<br>putati  |

|        |               | 5                                 |     |  |  |  | 8                                 |      |              |    |     |             |  |  |  | ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|--|--|--|
| 163666 | ATU025<br>606 | ATL8C3<br>3382:2<br>275..1<br>866 | nap |  |  |  | ATL8C3<br>3382:2<br>045..1<br>866 | 0.96 | g45876<br>13 | 99 | 116 | 7.1e-<br>05 | (AC006<br>951)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |  |  |  |
| 163667 | ATU025<br>607 | ATL8C1<br>395:43<br>8..921        | nap |  |  |  | ATL8C1<br>395:56<br>9..715        | 0.95 | g47339<br>77 | 99 | 576 | 2.2e-<br>55 | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |  |  |  |
| 163668 | ATU025<br>608 | ATL8C4<br>5176:5<br>6..212<br>5   | nap |  |  |  | ATL8C4<br>5176:5<br>6..212<br>5   | 0.95 | g42622<br>12 | 99 | 422 | 2.8e-<br>38 | (AC006<br>161)<br>putati<br>ve<br>leucin<br>e<br>zipper<br>trancr<br>iption<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |  |  |  |

|        |               |                                 |     |  |  |  |                                 |      |              |    |     |   |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|-----|---|---|
| 163669 | ATU025<br>609 | ATL8C2<br>9253:1<br>67..65<br>8 | nap |  |  |  | ATL8C2<br>9253:3<br>58..65<br>8 | 0.95 | g47339<br>77 | 99 | 479 | 8.5e-<br>37   | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal                    |
| 163670 | ATU025<br>610 | ATL8C3<br>9957:9<br>57..72      | nap |  |  |  | ATL8C3<br>9957:9<br>57..72      | 0.95 | g40068<br>22 | 99 | 621 | 1.1e-<br>63   | (AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal                    |
| 163671 | ATU025<br>611 | ATL8C4<br>6643:1<br>597..4<br>8 | nap |  |  |  | ATL8C4<br>6643:1<br>597..4<br>8 | 0.95 | g38611<br>88 | 99 | 158 | 1.8e-<br>13   | (AJ235<br>272)<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L24<br>(rplx)<br>[Ricke<br>ttsia<br>prowaz<br>ekii] |
| 163672 | ATU025<br>612 | ATL8C2<br>7362:2<br>27..61<br>4 | nap |  |  |  | ATL8C2<br>7362:2<br>48..61<br>4 | 0.95 | g22447<br>57 | 99 | 100 | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi |   |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |  |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|--|-----|-------------|---|
| 163673 | ATU025<br>613 | ATL8C3<br>295:27<br>66..33<br>36 | nap |  |  |  |  |  | ATL8C3<br>295:27<br>66..32<br>47 | 0.95 | g32427<br>12 | 99 |  | 610 | 5.3e-<br>56 | (AC003<br>040)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163674 | ATU025<br>614 | ATL8C3<br>4581:3<br>7..990       | nap |  |  |  |  |  | ATL8C3<br>4581:7<br>2..470       | 0.95 | g47689<br>96 | 99 |  | 211 | 1.5e-<br>08 | (AF140<br>498)<br>hypo-<br>thetical<br>protein<br>[Oryza<br>sativa<br>]             |
| 163675 | ATU025<br>615 | ATL8C2<br>0457:1<br>91..40<br>7  | nap |  |  |  |  |  | ATL8C2<br>0457:2<br>71..31<br>3  | 0.95 | g22889<br>87 | 99 |  | 153 | 1.3e-<br>08 | (AC002<br>335)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163676 | ATU025<br>616 | ATL8C2<br>086:10<br>65..58<br>0  | nap |  |  |  |  |  | ATL8C2<br>086:10<br>62..60<br>7  | 0.95 | g47339<br>77 | 99 |  | 562 | 8.2e-<br>52 | (AC007<br>264)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 163677 | ATU025<br>617 | ATL8C2<br>4117:2<br>45..21<br>59 | nap |  |  |  |  | ATL8C2<br>4117:2<br>45..21<br>59 | 0.94 | g36872<br>48 | 99 | 362 | 5.0e-<br>35 | thalia<br>na]<br>(AC005<br>169)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163678 | ATU025<br>618 | ATL8C2<br>1325:5<br>8..437       | nap |  |  |  |  | ATL8C2<br>1325:5<br>8..426       | 0.94 | g17856<br>93 | 99 | 497 | 1.8e-<br>48 | (Y0850<br>1)<br>orf111<br>a<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163679 | ATU025<br>619 | ATL8C1<br>3028:1<br>51..88<br>5  | nap |  |  |  |  | ATL8C1<br>3028:1<br>51..88<br>5  | 0.94 | g23885<br>76 | 99 | 679 | 7.5e-<br>63 | (AC000<br>098)<br>YUP8H1<br>2.17<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 163680 | ATU025<br>620 | ATL8C4<br>9825:5<br>..1545       | nap |  |  |  |  | ATL8C4<br>9825:5<br>..1545       | 0.94 | g37023<br>35 | 99 | 360 | 5.1e-<br>28 | (AC005<br>397)<br>putati<br>ve DNA<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |

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| 163681 | ATU025<br>621 | ATL8C1<br>2341:6<br>05..11<br>35 | nap |  |  |  | ATL8C1<br>2341:6<br>18..11<br>35 | 0.94 | g37026<br>63 | 99     | 395  | 5.6e-<br>36 | (AJ007<br>348)<br>pathog<br>enisis<br>- relate<br>d<br>protei<br>n 1.1<br>[Triti<br>cum<br>aestiv<br>um]                                  |
| 163682 | ATU025<br>622 | ATL8C8<br>935:30<br>43..20<br>07 | nap |  |  |  | ATL8C8<br>935:30<br>43..20<br>34 | 0.94 | g73231<br>1  | 99     | 101  | 0.070       | HYPOTH<br>ETICAL<br>15.7<br>KD<br>PROTEI<br>N IN<br>PBPD-<br>COMA<br>INTERG<br>ENIC<br>REGION<br>(ORF2)<br>[Bacil<br>lus<br>subtil<br>is] |
| 163683 | ATU025<br>623 | ATL8S2<br>9185:4<br>8..321       | nap |  |  |  | ATL8S2<br>9185:7<br>5..321       | 0.93 | g22737<br>0  | 99     | 276  | 1.5e-<br>15 | DNA<br>bindin<br>g<br>protei<br>n HU<br>[Bacil<br>lus<br>caldol<br>yticus<br>]  |
| 163684 | ATU025        | ATL8C4                           | nap |  |  |  | ATL8C4                           | 0.93 | g21911       | 99, 47 | 252, |             | (AF007  |



|        |                         |                                  |     |  |  |                                  |      |                     |    |     |             |  |
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| 624    | 3669:4<br>561..2<br>979 |                                  |     |  |  | 3669:4<br>561..3<br>336          |      | 65,<br>g44328<br>54 |    | 191 |             | 270)<br>A_IG00<br>2P16.1<br>4 gene<br>product<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>300)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163685 | ATU025<br>625           | ATL8C3<br>7551:1<br>411..7<br>34 | nap |  |  | ATL8C3<br>7551:1<br>411..7<br>34 | 0.93 | g28298<br>98        | 99 | 385 | 2.8e-<br>30 | (AC002<br>311)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163686 | ATU025<br>626           | ATL8S1<br>0324:4<br>..587        | nap |  |  | ATL8S1<br>0324:4<br>..587        | 0.93 | g28298<br>16        | 99 | 261 | 1.9e-<br>07 | NADH<br>DEHYDR<br>OGENAS<br>E I<br>CHAIN<br>K<br>(NADH-<br>UBIQUI<br>NONE<br>OXIDOR  |

|        |               |                                   |     |  |  |  |  |  |  |                                   |      |              |    |     |             |   |  |
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| 163687 | ATU025<br>627 | ATL8C5<br>875:11<br>75..17<br>61  | nap |  |  |  |  |  |  | ATL8C5<br>875:11<br>75..17<br>57  | 0.93 | g45103<br>61 | 99 | 439 |             |   | EDUCTA<br>SE<br>CHAIN<br>11)<br>(NUO11<br>)<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 163688 | ATU025<br>628 | ATL8C1<br>2684:2<br>353..1<br>888 | nap |  |  |  |  |  |  | ATL8C1<br>2684:2<br>298..1<br>888 | 0.93 | g41057<br>90 | 99 | 82  | 0.0001<br>6 | (AF049<br>926)<br>PGP219<br>[Petun<br>ia x<br>hybrid<br>a]            |  |
| 163689 | ATU025<br>629 | ATL8S5<br>0:1..5<br>66            | nap |  |  |  |  |  |  | ATL8S5<br>0:17..<br>566           | 0.92 | g44907<br>26 | 99 | 563 | 2.8e-<br>56 | (AL035<br>709)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis |  |

|        |               |                                     |     |  |  |  |                                     |      |              |    |      |              |  |
|--------|---------------|-------------------------------------|-----|--|--|--|-------------------------------------|------|--------------|----|------|--------------|--|
| 163690 | ATU025<br>630 | ATL8C3<br>6235:8<br>58..1           | nap |  |  |  | ATL8C3<br>6235:6<br>87..59          | 0.92 | g45673<br>15 | 99 | 1168 | 4.8e-<br>105 | thalia<br>nal<br>(AC005<br>956)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163691 | ATU025<br>631 | ATL8C1<br>4825:1<br>0225..<br>11521 | nap |  |  |  | ATL8C1<br>4825:1<br>0225..<br>11440 | 0.92 | g38057<br>59 | 99 | 212  | 4.8e-<br>13  | (AC005<br>693)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]                  |
| 163692 | ATU025<br>632 | ATL8C8<br>76:287<br>0..361<br>2     | nap |  |  |  | ATL8C8<br>76:289<br>2..361<br>0     | 0.92 | g38602<br>58 | 99 | 311  | 5.4e-<br>29  | (AC005<br>824)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]                           |
| 163693 | ATU025<br>633 | ATL8C1<br>1024:1<br>096..5<br>48    | nap |  |  |  | ATL8C1<br>1024:1<br>096..5<br>48    | 0.92 | g33373<br>64 | 99 | 380  | 3.0e-<br>27  | (AC004<br>481)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]                           |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 163694 | ATU025<br>634 | ATL8S2<br>387:19<br>7..433       | nap |  |  |  |  | ATL8S2<br>387:27<br>0..362       | 0.91 | g43371<br>99 | 99 | 92  | 4.5e-<br>08 | (AC006<br>403)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 163695 | ATU025<br>635 | ATL8C3<br>3645:5<br>10..10<br>79 | nap |  |  |  |  | ATL8C3<br>3645:7<br>72..10<br>79 | 0.91 | g42630<br>58 | 99 | 233 | 2.9e-<br>11 | (AC005<br>142)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163696 | ATU025<br>636 | ATL8C1<br>8190:8<br>06..35<br>2  | nap |  |  |  |  | ATL8C1<br>8190:5<br>84..35<br>2  | 0.91 | g46626<br>46 | 99 | 512 | 7.5e-<br>25 | (AC006<br>429)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163697 | ATU025<br>637 | ATL8S2<br>6098:5<br>53..44       | nap |  |  |  |  | ATL8S2<br>6098:5<br>41..11<br>6  | 0.90 | g18715<br>92 | 99 | 211 | 7.8e-<br>18 | (Z9266<br>9)<br>hypoth<br>etical<br>protein<br>Rv0219<br>[Mycob                    |



|        |               |                                  |     |                                   |                                 |      |              |    |      |              |   |   |
|--------|---------------|----------------------------------|-----|-----------------------------------|---------------------------------|------|--------------|----|------|--------------|---|---|
| 163702 | ATU025<br>642 | 4..513                           | nap | ATL8C2<br>0703:2<br>945..5<br>023 | 4..513                          | 0.89 | g47339<br>74 | 99 | 609  | 3.7e-<br>54  | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        | [Monod<br>onta<br>turbin<br>ata,<br>gonads<br>, Peptid<br>e, 106<br>aa] |
| 163703 | ATU025<br>643 | ATL8C1<br>2791:1<br>265..1<br>24 | nap | ATL8C1<br>2791:8<br>07..27<br>2   | ATL8C1<br>2791:8<br>07..27<br>2 | 0.89 | g13506<br>20 | 99 | 68   | 0.0005<br>3  | CHLORO<br>PLAST<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L18<br>[odont<br>ella<br>sinens<br>is] |   |
| 163704 | ATU025<br>644 | ATL8C1<br>3565:1<br>..2163       | nap | ATL8C1<br>3565:6<br>..2163        | ATL8C1<br>3565:6<br>..2163      | 0.89 | g42637<br>68 | 99 | 1564 | 5.4e-<br>136 | (AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |   |

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| 163705 | ATU025<br>645 | ATL8C2<br>2513:4<br>02..64<br>4  | nap |  |  | ATL8C2<br>2513:4<br>89..64<br>4  | 0.89 | g47411<br>88 | 99 | 148 | 1.5e-<br>06 | (AL049<br>746)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 163706 | ATU025<br>646 | ATL8C4<br>4277:5<br>43..15<br>51 | nap |  |  | ATL8C4<br>4277:5<br>43..15<br>51 | 0.88 | g43357<br>26 | 99 | 80  | 5.9e-<br>05 | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 163707 | ATU025<br>647 | ATL8C2<br>9341:2<br>89..73<br>3  | nap |  |  | ATL8C2<br>9341:2<br>89..70<br>2  | 0.88 | g45103<br>58 | 99 | 361 | 3.4e-<br>33 | (AC006<br>921)<br>putati<br>ve<br>touch-<br>induce<br>d<br>calmod<br>ulin<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163708 | ATU025<br>648 | ATL8S2<br>8705:7<br>2..305       | nap |  |  | ATL8S2<br>8705:7<br>2..194       | 0.88 | g38603<br>23 | 99 | 369 | 3.4e-<br>33 | (AJ012<br>688)<br>hypoth<br>etical   |

|        |               |                                   |     |  |  |  |  |                                   |      |                               |        |              |                             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|-------------------------------|--------|--------------|-----------------------------|--|
| 163709 | ATU025<br>649 | ATL8S1<br>7201:1<br>28..59<br>3   | nap |  |  |  |  | ATL8S1<br>7201:1<br>37..53<br>4   | 0.88 | g10767<br>86                  | 99     | 511          | 2.7e-<br>08                 | hypoth<br>etical<br>protein<br>n1 -<br>perenn<br>ial<br>teosin<br>te<br>[Zea<br>diplop<br>erenni<br>s]                   |
| 163710 | ATU025<br>650 | ATL8C4<br>9615:3<br>287..2<br>227 | nap |  |  |  |  | ATL8C4<br>9615:3<br>287..2<br>227 | 0.88 | g45080<br>82                  | 99     | 275          | 7.2e-<br>14                 | (AC005<br>882)<br>Putati<br>ve RNA<br>polyme<br>rase<br>II<br>subuni<br>t<br>Rpb10<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163711 | ATU025<br>651 | ATL8C2<br>0815:2<br>795..1        | nap |  |  |  |  | ATL8C2<br>0815:2<br>795..7<br>9   | 0.88 | g47339<br>66,<br>g43888<br>21 | 99, 80 | 132,<br>1325 | 0.0071<br>,<br>1.7e-<br>134 | (AC007<br>261)<br>hypoth<br>etical<br>protein<br>n<br>[Arabi<br>dopsis<br>thalia   |



|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 163712 | ATU025<br>652 | ATL8C1<br>4785:9<br>43..13<br>53  | nap |  |  |  |  |  | ATL8C1<br>4785:9<br>43..12<br>75  | 0.88 | g40564<br>97 | 99 | 618 | 1.2e-<br>40 | (AC006<br>528)<br>putati<br>ve<br>mudrA<br>transp<br>osase<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163713 | ATU025<br>653 | ATL8C8<br>069:39<br>62..44<br>49  | nap |  |  |  |  |  | ATL8C8<br>069:39<br>62..44<br>49  | 0.88 | g16209<br>86 | 99 | 321 | 1.6e-<br>27 | (Y0885<br>8) 40S<br>riboso<br>mal<br>protei<br>n S17<br>[Nicot<br>iana<br>plumba<br>ginifo<br>lia]             |
| 163714 | ATU025<br>654 | ATL8C2<br>9257:1<br>239..1<br>697 | nap |  |  |  |  |  | ATL8C2<br>9257:1<br>239..1<br>697 | 0.88 | g45876<br>18 | 99 | 260 | 1.8e-<br>24 | (AC006<br>951)<br>hypoth<br>etical<br>protei   |



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|--------|---------------|------------------------------------|-----|--|--|--|--|------------------------------------|------|--------------|----|-----|---------|--|
| 163719 | ATU025<br>659 | ATL8C2<br>2489:4<br>163...3<br>258 | nap |  |  |  |  | ATL8C2<br>2489:3<br>851...3<br>258 | 0.86 | g49031<br>39 | 99 | 429 | 1.2e-42 | dopsis<br>thalia<br>na]  |
|        |               |                                    |     |  |  |  |  |                                    |      |              |    |     |         | (AB027<br>456)<br>extens<br>ive<br>homolo<br>gy to<br>FT<br>(FLOWE<br>RING<br>LOCUS<br>T,<br>AB0275<br>04)<br>and<br>TSF<br>(TWIN<br>SISTER<br>OF FT,<br>AB0275<br>06)<br>genes<br>of<br>Arabid<br>opsis<br>thalia<br>na;<br>simila<br>r to<br>mammal<br>ian<br>phopha<br>tidyle<br>thanol<br>amine<br>bindin<br>g<br>protei |

|        |               |                                 |     |  |  |  |  |  |                                 |      |              |    |     |             |  |
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| 163720 | ATU025<br>660 | ATL8C2<br>1162:1<br>33..56<br>6 | nap |  |  |  |  |  | ATL8C2<br>1162:1<br>33..56<br>6 | 0.86 | g39151<br>94 | 99 | 138 | 3.0e-<br>09 | n<br>(PEBP)<br>and<br>hippoc<br>ampal<br>cholin<br>... []<br>HYPOTH<br>ETICAL<br>TRANST<br>HYRETI<br>N-LIKE<br>PROTEI<br>N<br>R09H10<br>.3 IN<br>CHROMO<br>SOME<br>IV<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] |
| 163721 | ATU025<br>661 | ATL8S6<br>955:11<br>..402       | nap |  |  |  |  |  | ATL8S6<br>955:68<br>..396       | 0.86 | g11768<br>67 | 99 | 230 |             | HYPOTH<br>ETICAL<br>PROTEI<br>N<br>HI0562<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd]   |
| 163722 | ATU025<br>662 | ATL8C9<br>252:11<br>43..21<br>6 | nap |  |  |  |  |  | ATL8C9<br>252:11<br>43..21<br>6 | 0.86 | g30213<br>44 | 99 | 564 |             | (AJ004<br>959)<br>hypo<br>thetical<br>protei<br>n  |

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| 163723 | ATU025<br>663 | ATL8C9<br>826:28<br>31..38<br>15 | nap |  |  |  | ATL8C9<br>826:34<br>31..38<br>15 | 0.86 | g45389<br>94 | 99 | 270 | 2.5e-23 | [Cicer arietinum] (AL049 481) hypothetical protein [Arabidopsis thaliana] |
| 163724 | ATU025<br>664 | ATL8C4<br>8905:1<br>058..3<br>15 | nap |  |  |  | ATL8C4<br>8905:7<br>42..31<br>5  | 0.86 | g29504<br>78 | 99 | 242 | 1.1e-12 | (AL022 070) hypothetical protein [Schizosaccharomyces pombe]              |
| 163725 | ATU025<br>665 | ATL8C2<br>2349:7<br>88..11       | nap |  |  |  | ATL8C2<br>2349:5<br>56..11       | 0.86 | g22244       | 99 | 151 | 1.0e-06 | (X0026 3) unidentified reading frame [Zea mays]                           |
| 163726 | ATU025<br>666 | ATL8C1<br>0179:2<br>83..79<br>2  | nap |  |  |  | ATL8C1<br>0179:4<br>28..79<br>2  | 0.86 | g38688<br>53 | 99 | 304 |         | (AB013 853) GPI-anchored protein  |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |     |             |   |
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| 163727 | ATU025<br>667 | ATL8S9<br>824:60<br>9..1        | nap |  |  |  |  | ATL8S9<br>824:59<br>1..400       | 0.85 | g38057<br>67 | 99 | 274 | 1.5e-<br>31 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n, 5'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163728 | ATU025<br>668 | ATL8C3<br>5599:7<br>22..11<br>7 | nap |  |  |  |  | ATL8C3<br>5599:7<br>22..14<br>1  | 0.85 | g11730<br>96 | 99 | 503 | 9.4e-<br>47 | RIBONU<br>CLEASE<br>HII<br>(RNASE<br>HII)<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd]                    |
| 163729 | ATU025<br>669 | ATL8C1<br>4523:1<br>264..9<br>6 | nap |  |  |  |  | ATL8C1<br>4523:1<br>264..2<br>06 | 0.85 | g45586<br>84 | 99 | 444 | 0.0081      | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 163730 | ATU025<br>670 | ATL8C2<br>4799:1<br>605..9<br>0 | nap |  |  |  |  | ATL8C2<br>4799:1<br>605..9<br>0  | 0.85 | g45875<br>61 | 99 | 628 | 1.2e-<br>62 | (AC006<br>577)<br>F15I1.<br>28<br>[Arabi  |

|        |               |                                   |     |  |  |  |  |  |                                   |      |                               |        |              |                              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 163731 | ATU025<br>671 | ATL8C2<br>3648:2<br>378..9<br>44  | nap |  |  |  |  |  | ATL8C2<br>3648:2<br>378..9<br>44  | 0.85 | g46783<br>26                  | 99     | 160          | 1.6e-<br>11                  | dopsis<br>thalia<br>na]<br>(AL049<br>658)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 163732 | ATU025<br>672 | ATL8C4<br>0767:6<br>03..12<br>8   | nap |  |  |  |  |  | ATL8C4<br>0767:4<br>20..23<br>0   | 0.85 | g18711<br>79                  | 99     | 227          | 7.1e-<br>17                  | (U9043<br>9)<br>FMRFam<br>ide<br>precu-<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163733 | ATU025<br>673 | ATL8C4<br>2017:5<br>194..3<br>055 | nap |  |  |  |  |  | ATL8C4<br>2017:5<br>044..3<br>055 | 0.85 | g47339<br>77,<br>g30803<br>61 | 99, 68 | 495,<br>1127 | 2.2e-<br>41,<br>1.2e-<br>101 | (AC007<br>264)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AL022<br>580)<br>hypo-<br>thetical<br>protein |

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| 163734 | ATU025<br>674 | ATL8C2<br>7868:1<br>841..1        | nap |  |  |  |  | ATL8C2<br>7868:1<br>814..1<br>48  | 0.85 | g10649<br>31 | 99 | 887 |             | [Arabi<br>dopsis<br>thalia<br>na]<br>(X9296<br>5)<br>cyclin<br>A-like<br>protei<br>n<br>[Nicot<br>iana<br>tabacu<br>m] |
| 163735 | ATU025<br>675 | ATL8C1<br>9440:1<br>119..8        | nap |  |  |  |  | ATL8C1<br>9440:7<br>70..8         | 0.85 | g49143<br>59 | 99 | 471 | 3.6e-<br>42 | (AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 163736 | ATU025<br>676 | ATL8C4<br>2086:1<br>586..1<br>027 | nap |  |  |  |  | ATL8C4<br>2086:1<br>586..1<br>079 | 0.84 | g45859<br>30 | 99 | 711 | 1.0e-<br>72 | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 163737 | ATU025<br>677 | ATL8C4<br>3377:6<br>93..12<br>4   | nap |  |  |  |  | ATL8C4<br>3377:4<br>56..18<br>6   | 0.84 | g40068<br>23 | 99 | 255 |             | (AC005<br>970)<br>hypoth<br>etical<br>protei<br>n  |



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| 163738 | ATU025<br>678 | ATL8C3<br>0529:4<br>9..189<br>2   | nap |  |  |  |  | ATL8C3<br>0529:4<br>9..189<br>2   | 0.84 | g47339<br>70 | 99 | 136 | 7.2e-<br>10 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163739 | ATU025<br>679 | ATL8C4<br>5563:1<br>865..1<br>311 | nap |  |  |  |  | ATL8C4<br>5563:1<br>865..1<br>311 | 0.84 | g38057<br>59 | 99 | 222 | 1.9e-<br>13 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 163740 | ATU025<br>680 | ATL8C2<br>1764:1<br>573..4<br>15  | nap |  |  |  |  | ATL8C2<br>1764:1<br>573..4<br>15  | 0.84 | g23427<br>35 | 99 | 247 | 8.6e-<br>19 | (AC002<br>341)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163741 | ATU025<br>681 | ATL8C4<br>0852:1<br>274..4<br>70  | nap |  |  |  |  | ATL8C4<br>0852:1<br>274..4<br>78  | 0.84 | g21296<br>30 | 99 | 517 | 7.6e-<br>42 | lamin<br>-<br>Arabid<br>opsis<br>thalia<br>na   |

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| 163742 | ATU025<br>682 | ATL8C4<br>5756:1<br>593..9<br>0 | nap |  |  |  |  |  | ATL8C4<br>5756:1<br>593..9<br>0 | 0.84 | g45389<br>15 | 99 | 310 | 5.9e-<br>27 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL049<br>482)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163743 | ATU025<br>683 | ATL8C1<br>028:13<br>97..22<br>0 | nap |  |  |  |  |  | ATL8C1<br>028:13<br>97..24<br>9 | 0.84 | g33778<br>09 | 99 | 325 | 1.8e-<br>34 | (AF075<br>597)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s<br>(DNA-<br>bindin<br>g and<br>dimeri<br>zation<br>domain<br>)<br>(PFam:<br>transc<br>ript_f<br>act.hm<br>m, |

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| 163744 | ATU025<br>684 | ATL8S3<br>84:509<br>..2          | nap |  |  |  |  |  | ATL8S3<br>84:509<br>..36         | 0.84 | g34028<br>40 | 99 | 133 | 9.2e-<br>08 | score:<br>15.85)<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(Y1787<br>2)<br>putati<br>ve<br>sensor<br>kinase<br>[Eubac<br>terium<br>acidam<br>inophi<br>lum] |
| 163745 | ATU025<br>685 | ATL8S4<br>382:32<br>..352        | nap |  |  |  |  |  | ATL8S4<br>382:49<br>..352        | 0.84 | g28295<br>67 | 99 | 148 | 9.3e-<br>13 | HYPOTH<br>ETICAL<br>11.4<br>KD<br>PROTEI<br>N<br>CY277.<br>17<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]   |
| 163746 | ATU025<br>686 | ATL8C4<br>2376:4<br>47..19<br>15 | nap |  |  |  |  |  | ATL8C4<br>2376:4<br>47..19<br>15 | 0.84 | g28326<br>47 | 99 | 414 | 2.1e-<br>22 | (AL021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia  |

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| 163747 | ATU025<br>687 | ATL8S8<br>714:56<br>9..5         | nap |  |  |  | ATL8S8<br>714:33<br>3..64        | 0.83 | g40068<br>23 | 99 | 181 | 1.1e-<br>14 | na]<br>(AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163748 | ATU025<br>688 | ATL8C4<br>6258:8<br>63..16<br>69 | nap |  |  |  | ATL8C4<br>6258:8<br>63..16<br>17 | 0.83 | g45859<br>30 | 99 | 696 | 8.7e-<br>67 | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 163749 | ATU025<br>689 | ATL8C3<br>983:33<br>4..735       | nap |  |  |  | ATL8C3<br>983:58<br>3..448       | 0.83 | g30972<br>62 | 99 | 117 | 1.5e-<br>06 | (AJ005<br>742)<br>self-<br>incomp<br>atibil<br>ity<br>[Papav<br>er<br>nudica<br>ule]          |
| 163750 | ATU025<br>690 | ATL8C1<br>8989:6<br>00..57       | nap |  |  |  | ATL8C1<br>8989:5<br>19..57       | 0.83 | g28299<br>00 | 99 | 247 | 1.1e-<br>20 | (AC002<br>311)<br>simila<br>r to<br>ripeni<br>ng-<br>induce<br>d<br>protei                    |

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| 163751 | ATU025<br>691 | ATL8C3<br>6769:8<br>66..19<br>1 | nap |  |  |  |  |  | ATL8C3<br>6769:8<br>66..19<br>1 | 0.83 | g23410<br>29                  | 99     | 769          | 8.9e-<br>30                  | n,<br>gp AJ0<br>01449 <br>246501<br>5 and<br>major<br>latex<br>protei<br>n,<br>gp X91<br>961 11<br>07495<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163752 | ATU025<br>692 | ATL8C3<br>183:1.<br>.2751       | nap |  |  |  |  |  | ATL8C3<br>183:46<br>3..227<br>6 | 0.83 | g18711<br>79,<br>g48952<br>42 | 99, 79 | 369,<br>1514 | 4.0e-<br>22,<br>1.1e-<br>100 | (U9043<br>9)<br>FMRFam<br>ide<br>precur<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC007<br>659)<br>putati<br>ve<br>transc    |

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| 163753 | ATU025<br>693 | ATL8C2<br>5086:1<br>292..2<br>847 | nap |  |  |  |  | ATL8C2<br>5086:1<br>292..2<br>847 | 0.83 | g10026<br>6  | 99 | 167 | 7.7e-<br>14 | homeo-<br>tic<br>protein<br>Hox7 -<br>Peruvian<br>tomato<br>[Lycopersicon<br>peruvianum]<br>(AC005<br>275)<br>putative<br>frataxin-<br>like<br>protein<br>[Arabidopsis<br>thaliana] |
| 163754 | ATU025<br>694 | ATL8C4<br>2657:1<br>0..138<br>4   | nap |  |  |  |  | ATL8C4<br>2657:2<br>95..13<br>84  | 0.82 | g42621<br>52 | 99 | 471 | 1.0e-<br>41 | (AC005<br>275)<br>putative<br>frataxin-<br>like<br>protein<br>[Arabidopsis<br>thaliana]   |
| 163755 | ATU025<br>695 | ATL8S1<br>29:762<br>..26          | nap |  |  |  |  | ATL8S1<br>29:380<br>..26          | 0.82 | g44328<br>43 | 99 | 136 | 6.9e-<br>17 | (AC006<br>283)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana]  |

|        |               |                                   |     |  |  |  |  |                                   |      |                         |        |            |                        |   |
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| 163756 | ATU025<br>696 | ATL8C3<br>1987:3<br>99..66<br>1   | nap |  |  |  |  | ATL8C3<br>1987:4<br>65..63<br>7   | 0.81 | g43357<br>26            | 99     | 194        | 4.5e-<br>14            | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163757 | ATU025<br>697 | ATL8C1<br>9848:9<br>16..27<br>0   | nap |  |  |  |  | ATL8C1<br>9848:6<br>05..27<br>0   | 0.81 | g21297<br>52            | 99     | 214        | 4.8e-<br>20            | thiore<br>doxin<br>-<br>Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 163758 | ATU025<br>698 | ATL8C4<br>6972:2<br>274..1<br>661 | nap |  |  |  |  | ATL8C4<br>6972:2<br>248..1<br>661 | 0.81 | g45586<br>75            | 99     | 636        | 1.2e-<br>21            | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 163759 | ATU025<br>699 | ATL8S1<br>1889:5<br>2..744        | nap |  |  |  |  | ATL8S1<br>1889:5<br>2..726        | 0.81 | g43356<br>78,<br>g43356 | 99, 61 | 139,<br>97 | 1.2e-<br>13,<br>0.0001 | (U6500<br>1)<br>unknow  |

|        |               |                                 |     |  |  |  |  |  | 79   |              |    | 1   | n<br>[Sphin<br>gomona<br>s<br>sp.];<br>(U6500<br>1)<br>unknow<br>n<br>[Sphin<br>gomona<br>s<br>sp.]   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|------|--------------|----|-----|---|
| 163760 | ATU025<br>700 | ATL8C1<br>4661:3<br>27..59<br>0 | nap |  |  |  |  |  | 0.81 | g22889<br>84 | 99 | 374 | 2.6e-<br>35<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><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| 163763 | ATU025<br>703 | ATL8C1<br>0163:1<br>46..37<br>6 | nap |  |  |  |  | ATL8C1<br>0163:1<br>73..37<br>6  | 0.79 | g43712<br>89                  | 99     | 324          | [Arabi<br>dopsis<br>thalia<br>nal]<br>(AC006<br>260)<br>putati<br>ve,<br>DNA-<br>bindin<br>g<br>protei<br>n SlF<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163764 | ATU025<br>704 | ATL8C2<br>2303:1<br>..8677      | nap |  |  |  |  | ATL8C2<br>2303:6<br>31..86<br>77 | 0.79 | g38057<br>59,<br>g43097<br>63 | 99, 84 | 214,<br>3878 | [Arabi<br>dopsis<br>thalia<br>nal];<br>(AC006<br>217)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |

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| 163765 | ATU025<br>705 | ATL8C3<br>2433:1<br>..1899 | nap |  |  |  | ATL8C3<br>2433:4<br>9..189<br>9 | 0.79 | g21911<br>42 | 99 | 2169 | 8.8e-<br>232 | (AF007<br>269)<br>A_IG00<br>2N01.2<br>7 gene<br>product<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163766 | ATU025<br>706 | ATL8C4<br>1209:3<br>04..92 | nap |  |  |  | ATL8C4<br>1209:2<br>88..92      | 0.79 | g14317<br>15 | 99 | 146  | 1.7e-<br>10  | Recomb<br>inant<br>Cucurb<br>ita<br>Maxima<br>Trypsi<br>n<br>Inhibi<br>tor V<br>(Rcmti<br>-V)<br>(Nmr,<br>Minimi<br>zed<br>Averag<br>e<br>Struct<br>ure)<br>[] |
| 163767 | ATU025<br>707 | ATL8C7<br>621:81<br>5..185 | nap |  |  |  | ATL8C7<br>621:81<br>5..218      | 0.78 | g26422<br>15 | 99 | 138  | 2.3e-<br>11  | (AF030<br>386)<br>NOI<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163768 | ATU025        | ATL8S2                     | nap |  |  |  | ATL8S2                          | 0.78 | g79158       | 99 | 284  | 3.2e-        | mer  |

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| 163769 | 708           | 8291:4<br>24..35                 |     |  |  |  | 8291:1<br>76...35                |      |              |    |     |             | 17   | operon<br>ORF1<br>hypoth<br>etical<br>protei<br>n -<br>Serrat<br>ia<br>marces<br>cens<br>plasmid<br>pDU135<br>8<br>[Plasm<br>id<br>pDU135<br>8] |
|        | ATU025<br>709 | ATL8C2<br>3966:8<br>12..24<br>63 | nap |  |  |  | ATL8C2<br>3966:8<br>12..24<br>63 | 0.78 | g16534<br>88 | 99 | 83  | 0.0028      | (D9091<br>4)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]  |   |
| 163770 | ATU025<br>710 | ATL8C2<br>2999:6<br>4..242<br>6  | nap |  |  |  | ATL8C2<br>2999:1<br>18..24<br>26 | 0.78 | g49144<br>37 | 99 | 251 | 4.4e-<br>17 | (AL050<br>351)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 163771 | ATU025<br>711 | ATL8C4<br>827:33                 | nap |  |  |  | ATL8C4<br>827:33                 | 0.78 | g17300<br>34 | 99 | 102 | 0.0019      | KE2<br>PROTEI  |   |

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| 163772 | ATU025<br>712 | 6..136<br>3                       | nap |  |  |  | 6..135<br>7                       | 0.78 | g30972<br>60 | 99 | 83  | 4.5e-<br>10 | N<br>HOMOLO<br>G<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s]                            |
| 163773 | ATU025<br>713 | ATL8C2<br>099:63<br>1..216        | nap |  |  |  | ATL8C2<br>099:62<br>2..534        | 0.77 | g47339<br>77 | 99 | 451 | 2.4e-<br>33 | (AJ005<br>741)<br>self-<br>incomp<br>atibil<br>ity<br>[Papav<br>er<br>rheas<br>]       |
| 163774 | ATU025<br>714 | ATL8C4<br>6536:3<br>131..3<br>636 | nap |  |  |  | ATL8C4<br>6536:3<br>131..3<br>633 | 0.77 | g45804<br>65 | 99 | 440 | 7.4e-<br>31 | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163775 | ATU025<br>715 | ATL8S2<br>7893:4<br>71..85        | nap |  |  |  | ATL8S2<br>7893:4<br>59..85        | 0.77 | g45824<br>66 | 99 | 145 |             | (AC006<br>081)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               | ATL8C2<br>7678:5                  | nap |  |  |  | ATL8C2<br>7678:5                  | 0.77 |              |    |     |             | (AC007<br>071)   |



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| 163780 | ATU025<br>720 | ATL8C1<br>5284:1<br>108..6<br>8 | nap |  |  |  |  |  | ATL8C1<br>5284:9<br>94..24<br>2 | 0.76 |  | g47340<br>15,<br>g42635<br>48 | 99, 71 | 269,<br>331 | 7.0e-<br>26,<br>1.0e-<br>22 | (AC007<br>112)<br>hypothesis<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>250)<br>putative<br>En/Spm<br>transp<br>oson<br>protein |
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| 163781 | ATU025<br>721 | ATL8C1<br>4791:3<br>195..2<br>009 | nap |  |  |  | ATL8C1<br>4791:2<br>924..2<br>009 | 0.76 | g20621<br>68 | 99 | 134 | 0.0037      | (AC001<br>645)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 163782 | ATU025<br>722 | ATL8C4<br>5183:1<br>017..6<br>46  | nap |  |  |  | ATL8C4<br>5183:1<br>017..1<br>012 | 0.76 | g26422<br>15 | 99 | 104 | 1.0e-<br>06 | (AF030<br>386)<br>NOI<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 163783 | ATU025<br>723 | ATL8C2<br>9152:7<br>..625         | nap |  |  |  | ATL8C2<br>9152:2<br>48..62<br>5   | 0.75 | g41027<br>27 | 99 | 239 | 1.1e-<br>21 | (AF015<br>782)<br>blight<br>- associ<br>ated<br>protein<br>p12<br>precursor<br>[Citru<br>s<br>jambhi |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 163784 | ATU025<br>724 | ATL8C1<br>2915:1<br>37..25<br>73  | nap |  |  |  | ATL8C1<br>2915:1<br>37..25<br>73  | 0.75 | g12451<br>05 | 99 | 140 | 0.087       | ri]<br>(U4646<br>3)<br>glutam<br>ine<br>repeat<br>protei<br>n-1<br>[Mus<br>muscul<br>us]                |
| 163785 | ATU025<br>725 | ATL8C1<br>8691:2<br>..817         | nap |  |  |  | ATL8C1<br>8691:4<br>8..642        | 0.75 | g45899<br>58 | 99 | 266 | 7.6e-<br>23 | (AC007<br>169)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                 |
| 163786 | ATU025<br>726 | ATL8C4<br>1472:6<br>44..23<br>7   | nap |  |  |  | ATL8C4<br>1472:6<br>44..29<br>4   | 0.75 | g13621<br>08 | 99 | 625 | 1.6e-<br>49 | histon<br>e H3<br>homolo<br>g -<br>common<br>tobacc<br>o []]  |
| 163787 | ATU025<br>727 | ATL8C1<br>0930:4<br>462..1<br>617 | nap |  |  |  | ATL8C1<br>0930:4<br>462..1<br>820 | 0.75 | g73177<br>7  | 99 | 109 | 3.8e-<br>07 | HYPOTH<br>ETICAL<br>11.0<br>KD<br>PROTEI<br>N IN<br>FAA3-<br>MAS3<br>INTERG<br>ENIC<br>REGION<br>[Sacch |



|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 163788 | ATU025<br>728 | ATL8S2<br>003:38<br>6..3          | nap |  |  |  | ATL8S2<br>003:36<br>8..21         | 0.75 | g22931<br>69 | 99 | 139 | 2.9e-<br>12 | aromyc<br>es<br>cerevi<br>siae]<br>(AF008<br>220)<br>transc<br>riptio<br>n<br>regula<br>tor<br>[Bacil<br>lus<br>subtil<br>is] |
| 163789 | ATU025<br>729 | ATL8C2<br>0755:9<br>46..11<br>1   | nap |  |  |  | ATL8C2<br>0755:9<br>46..24<br>2   | 0.75 | g48039<br>58 | 99 | 643 | 6.4e-<br>64 | (AC006<br>202)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163790 | ATU025<br>730 | ATL8C3<br>3088:4<br>18..10<br>45  | nap |  |  |  | ATL8C3<br>3088:4<br>18..98<br>1   | 0.75 | g45593<br>86 | 99 | 654 | 4.2e-<br>63 | (AC006<br>526)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 163791 | ATU025<br>731 | ATL8C4<br>8407:3<br>047..2<br>077 | nap |  |  |  | ATL8C4<br>8407:3<br>047..2<br>077 | 0.74 | g39414<br>34 | 99 | 783 | 4.9e-<br>65 | (AF062<br>871)<br>putati<br>ve  |



|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|---|
| 163796 | ATU025<br>736 | ATL8C4<br>3814:2<br>024..1<br>568 | nap |  |  |  |  | ATL8C4<br>3814:2<br>024..1<br>568 | 0.74 | g45876<br>18 | 99 | 268 |             |  | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  | (AC006<br>951)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163797 | ATU025<br>737 | ATL8C1<br>9763:1<br>..901         | nap |  |  |  |  | ATL8C1<br>9763:4<br>6..191        | 0.73 | g33722<br>33 | 99 | 505 | 5.3e-<br>55 |  | (AF019<br>248)<br>RNA<br>polyme<br>rase<br>I, II<br>and<br>III<br>24.3<br>kDa<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |   |
| 163798 | ATU025<br>738 | ATL8C9<br>913:12<br>31..48<br>2   | nap |  |  |  |  | ATL8C9<br>913:12<br>17..89<br>8   | 0.73 | g45824<br>62 | 99 | 297 | 8.9e-<br>18 |  | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |   |
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| 163799 | ATU025<br>739 | ATL8C3<br>2322:5<br>61..12<br>67  | nap |  |  |  |  | ATL8C3<br>2322:6<br>15..12<br>67  | 0.73 | g45672<br>25 | 99 | 266 | 2.2e-<br>24 | dopsis<br>thalia<br>nal<br>(AC007<br>119)<br>unknown<br>n<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163800 | ATU025<br>740 | ATL8S4<br>848:13<br>4..551        | nap |  |  |  |  | ATL8S4<br>848:13<br>4..551        | 0.73 | g24072<br>34 | 99 | 211 | 3.2e-<br>17 | (AF017<br>750)<br>similar<br>to<br>Haemop<br>hilus<br>influe<br>nzae<br>produc<br>t<br>encode<br>d by<br>GenBan<br>k<br>Access<br>ion<br>Number<br>U32836<br>[Haemo<br>philus<br>ducrey<br>i] |
| 163801 | ATU025<br>741 | ATL8C3<br>2068:2<br>659..2<br>164 | nap |  |  |  |  | ATL8C3<br>2068:2<br>624..2<br>164 | 0.73 | g30803<br>59 | 99 | 403 | 3.4e-<br>33 | (AL022<br>580)<br>hypoth<br>etical<br>protei  |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 163802 | ATU025<br>742 | ATL8C4<br>9445:2<br>0..461      | nap |  |  |  |  | ATL8C4<br>9445:2<br>35..33<br>5 | 0.72 | g19463<br>74 | 99 | 86  | 3.0e-<br>12 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(U9321<br>5)<br>myb-<br>like<br>protei<br>n<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163803 | ATU025<br>743 | ATL8C1<br>6902:8<br>82..33<br>9 | nap |  |  |  |  | ATL8C1<br>6902:8<br>82..33<br>9 | 0.72 | g31932<br>98 | 99 | 161 | 3.7e-<br>14 | (AF069<br>298)<br>T14P8.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163804 | ATU025<br>744 | ATL8C1<br>3555:1<br>..705       | nap |  |  |  |  | ATL8C1<br>3555:1<br>17..70<br>5 | 0.72 | g22526<br>29 | 99 | 647 | 2.4e-<br>42 | (U9597<br>3)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163805 | ATU025<br>745 | ATL8S2<br>1880:2<br>79..4       | nap |  |  |  |  | ATL8S2<br>1880:2<br>42..4       | 0.72 | g22737<br>0  | 99 | 286 | 1.8e-<br>24 | DNA<br>bindin<br>g   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |
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| 163806 | ATU025<br>746 | ATL8C3<br>3380:1<br>42..10<br>04 | nap |  |  |  |  | ATL8C3<br>3380:1<br>42..10<br>04 | 0.72 | g25014<br>49 | 99 | 184 | 7.0e-<br>14 | UBIQUI<br>TIN-<br>LIKE<br>PROTEI<br>N SMT3<br>[Oryza<br>sativa<br>]   |
| 163807 | ATU025<br>747 | ATL8C2<br>4768:1<br>158..3<br>24 | nap |  |  |  |  | ATL8C2<br>4768:1<br>086..3<br>24 | 0.72 | g18711<br>96 | 99 | 784 | 2.1e-<br>81 | (U9043<br>9) GMP<br>kinase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163808 | ATU025<br>748 | ATL8C2<br>1224:4<br>41..13<br>31 | nap |  |  |  |  | ATL8C2<br>1224:4<br>41..13<br>31 | 0.72 | g21299<br>56 | 99 | 431 | 6.4e-<br>33 | photoa<br>ssimil<br>ate-<br>respon<br>sive<br>protei<br>n PAR-<br>1c<br>precu<br>sor -<br>common<br>tobacc<br>o<br>[Nicot<br>iana<br>tabacu<br>m] |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 163809 | ATU025<br>749 | ATL8C2<br>4786:2<br>378..1<br>221 | nap |  |  |  | ATL8C2<br>4786:2<br>378..1<br>221 | 0.72 | g48369<br>19 | 99 | 646 | 2.le-<br>51 | (AC007<br>153)<br>99202<br>[Arabi<br>dopsis<br>thalia<br>nal]                           |
| 163810 | ATU025<br>750 | ATL8C4<br>7499:2<br>033..3<br>746 | nap |  |  |  | ATL8C4<br>7499:2<br>033..3<br>746 | 0.72 | g47339<br>79 | 99 | 147 | 0.0005<br>3 | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163811 | ATU025<br>751 | ATL8C3<br>529:25<br>4..825        | nap |  |  |  | ATL8C3<br>529:25<br>4..584        | 0.72 | g45859<br>30 | 99 | 701 | 5.0e-<br>71 | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163812 | ATU025<br>752 | ATL8C4<br>18:242<br>..966         | nap |  |  |  | ATL8C4<br>18:277<br>..966         | 0.72 | g47614<br>53 | 99 | 88  | 2.7e-<br>05 | (AF119<br>384)<br>putati<br>ve<br>CAMP<br>protei<br>n<br>[Mus<br>muscul<br>us]          |
| 163813 | ATU025<br>753 | ATL8C3<br>4526:1<br>022..5        | nap |  |  |  | ATL8C3<br>4526:1<br>022..5        | 0.71 | g10820<br>54 | 99 | 536 | 2.1e-<br>45 | (Z4985<br>9)<br>copper  |

|        |               |                                   |     |  |  |  |  |    |      |               |        |             |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|----|------|---------------|--------|-------------|--------------|--|
| 163814 | ATU025<br>754 | ATL8C1<br>4825:9<br>943..4<br>397 | nap |  |  |  |  | 46 | 0.71 | g45593<br>60  | 99     | 581         | 4.4e-<br>31  | (AC006<br>585)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163815 | ATU025<br>755 | ATL8S1<br>1738:2<br>65..57<br>7   | nap |  |  |  |  |    | 0.71 | g34200<br>51  | 99     | 441         | 2.8e-<br>42  | (AC004<br>680)<br>unknow<br>n<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 163816 | ATU025<br>756 | ATL8C3<br>9021:3<br>86..85<br>1   | nap |  |  |  |  |    | 0.70 | g44172<br>75  | 99     | 602         | 4.6e-<br>59  | (AC007<br>019)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163817 | ATU025<br>757 | ATL8C4<br>6109:1                  | nap |  |  |  |  |    | 0.69 | g45824<br>56, | 99, 84 | 694,<br>549 | 1.8e-<br>72, | (AC007<br>071)   |



|        |               |                                  |     |  |  |  |                                  |              |             |   |
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| 163818 | ATU025<br>758 | ATL8C2<br>4720:1<br>019..4<br>38 | nap |  |  |  | 1..319<br>8                      | 945824<br>57 | 2.0e-<br>44 | putati<br>ve<br>tritho<br>rax<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC007<br>071)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163819 | ATU025<br>759 | ATL8C1<br>265:16<br>83..19<br>6  | nap |  |  |  | ATL8C2<br>4720:1<br>019..4<br>38 | g42204<br>78 | 7.2e-<br>34 | (AC006<br>069)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
|        |               |                                  |     |  |  |  | ATL8C1<br>265:10<br>57..32<br>0  | g29110<br>79 | 8.6e-<br>49 | (AL021<br>960)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |

|        |               |                                  |     |  |  |  |                                  |      |  |               |                     |   |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--|---------------|---------------------|---|--|
| 163820 | ATU025<br>760 | ATL8C4<br>4256:7<br>62..32<br>1  | nap |  |  |  | ATL8C4<br>4256:7<br>62..32<br>1  | 0.69 | g30803<br>57                                   | 99            | 522                 | 6.6e-<br>05                                 | (AL022<br>580)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163821 | ATU025<br>761 | ATL8C1<br>430:55<br>18..46<br>73 | nap |  |  |  | ATL8C1<br>430:55<br>18..48<br>01 | 0.69 | g45586<br>84                                   | 99            | 502                 | 2.8e-<br>20                                 | (AC006<br>586)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163822 | ATU025<br>762 | ATL8S1<br>2284:6<br>37..8        | nap |  |  |  | ATL8S1<br>2284:6<br>37..8        | 0.69 | g21206<br>87                                   | 99            | 218                 | 1.5e-<br>12                                 | TodR<br>protein<br>-<br>Pseudo<br>monas<br>putida<br>[Pseud<br>omonas<br>putida<br>] |
| 163823 | ATU025<br>763 | ATL8C1<br>5703:8<br>0..267<br>2  | nap |  |  |  | ATL8C1<br>5703:3<br>29..20<br>50 | 0.69 | g48369<br>35,<br>g41153<br>62,<br>g25650<br>02 | 99,<br>53, 33 | 155,<br>829,<br>191 | 4.1e-<br>15,<br>3.6e-<br>68,<br>7.6e-<br>10 | (AC006<br>085)<br>Hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>na]             |



|        |               |                            |     |  |  |  |  |  |                                 |      |                               |        |              |                              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 163826 | ATU025<br>766 | ATL8C5<br>528:1.<br>.3382  | nap |  |  |  |  |  | ATL8C5<br>528:37<br>9..338<br>2 | 0.68 | 947339<br>99,<br>g33193<br>62 | 99, 78 | 744,<br>1935 | 9.2e-<br>73,<br>4.6e-<br>256 | protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163827 | ATU025<br>767 | ATL8C1<br>9855:2<br>154..2 | nap |  |  |  |  |  | ATL8C1<br>9855:2<br>032..3      | 0.68 | 943098<br>68                  | 99     | 2221         | 1.2e-<br>146                 | (AC006<br>527)<br>putati                     |

|        |               |    |    |      |              |     |             |  |
|--------|---------------|----|----|------|--------------|-----|-------------|--|
| 163828 | ATU025<br>768 | 75 | 74 | 0.68 | g28298<br>99 | 360 | 3.4e-<br>32 | (AC002<br>311)<br>simila<br>r to<br>ripeni<br>ng-<br>induce<br>d<br>protei<br>n,<br>gp AJ0<br>01449 <br>246501<br>5 and<br>major#<br>latex<br>protei<br>n,<br>gp X91<br>961 11<br>07495<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163829 | ATU025<br>769 | 75 | 74 | 0.67 | g37899<br>11 | 457 | 2.8e-<br>43 | (AF081<br>802)<br>develo<br>pmenta<br>l  |

|        |               |                                  |     |  |  |  |  |                                  |      |                             |        |             |                              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|-----------------------------|--------|-------------|------------------------------|--|
| 163830 | ATU025<br>770 | ATL8C1<br>6695:6<br>11..93       | nap |  |  |  |  | ATL8C1<br>6695:6<br>11..93       | 0.67 | g38853<br>43                | 99     | 612         | 4.6e-<br>54                  | (AC005<br>623)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 163831 | ATU025<br>771 | ATL8C2<br>6433:1<br>861..1       | nap |  |  |  |  | ATL8C2<br>6433:1<br>271..8<br>8  | 0.67 | g43253<br>69                | 99     | 295         | 3.3e-<br>34                  | (AF128<br>396)<br>T3H13.<br>3 gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163832 | ATU025<br>772 | ATL8C3<br>0248:2<br>79..10<br>75 | nap |  |  |  |  | ATL8C3<br>0248:2<br>79..10<br>75 | 0.67 | g48742<br>71                | 99     | 157         | 4.1e-<br>09                  | (AC007<br>354)<br>T16B5.<br>9<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 163833 | ATU025<br>773 | ATL8C7<br>750:37<br>61..59<br>5  | nap |  |  |  |  | ATL8C7<br>750:37<br>17..15<br>72 | 0.67 | g22244<br>,<br>g44163<br>01 | 99, 84 | 67,<br>3067 | 0.0001<br>6,<br>4.8e-<br>289 | (X0026<br>3)<br>uniden<br>tified   |

|        |               |                                 |     |  |  |  |  |                                 |      |                               |        |             |                             |  |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|---|
| 163834 | ATU025<br>774 | ATL8C4<br>9864:9<br>9..670      | nap |  |  |  |  | ATL8C4<br>9864:9<br>9..670      | 0.67 | g28326<br>47                  | 99     | 197         | 4.4e-<br>09                 | AL021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  | g<br>frame<br>[Zea<br>mays];<br>(AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays] |
| 163835 | ATU025<br>775 | ATL8C2<br>8104:6<br>69..90<br>9 | nap |  |  |  |  | ATL8C2<br>8104:8<br>02..90<br>9 | 0.67 | g31767<br>05                  | 99     | 162         | 3.0e-<br>12                 | (AC002<br>392)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | g<br>frame<br>[Zea<br>mays];<br>(AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays] |
| 163836 | ATU025<br>776 | ATL8S2<br>4867:5<br>36..1       | nap |  |  |  |  | ATL8S2<br>4867:4<br>28..13<br>3 | 0.66 | g24964<br>75,<br>g24964<br>74 | 99, 60 | 130,<br>121 | 2.0e-<br>08,<br>1.8e-<br>07 | HYPOTH<br>ETICAL<br>11.0<br>KD<br>PROTEI<br>N<br>CY78.2<br>1C                          | g<br>frame<br>[Zea<br>mays];<br>(AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays] |





|        |               |                                    |     |  |  |  |                                   |      |                               |        |             |                             |   |
|--------|---------------|------------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|---|
| 163838 | ATU025<br>778 | ATL8C4<br>5750:1<br>237..2<br>18   | nap |  |  |  | ATL8C4<br>5750:1<br>021..4<br>11  | 0.66 | g37383<br>23                  | 99     | 482         | 6.6e-<br>46                 | thalia<br>na];<br>(AC004<br>005)<br>hypoth<br>etical,<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163839 | ATU025<br>779 | ATL8C2<br>5778:5<br>10..15<br>79   | nap |  |  |  | ATL8C2<br>5778:5<br>28..15<br>79  | 0.66 | g45672<br>72                  | 99     | 320         | 2.4e-<br>33                 | (AC006<br>841)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 163840 | ATU025<br>780 | ATL8C1<br>1602:1<br>0559..<br>7848 | nap |  |  |  | ATL8C1<br>1602:9<br>965..7<br>848 | 0.66 | g45586<br>63,<br>g31282<br>03 | 99, 48 | 207,<br>248 | 0.0006<br>2,<br>2.0e-<br>21 | (AC007<br>063)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>na]                                   |



|        |               |                                 |     |  |  |  |  |      |                               |        |             |                             |   |
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| 163843 | ATU025<br>783 | ATL8C9<br>245:69<br>2..321<br>5 | nap |  |  |  |  | 0.65 | g49143<br>36                  | 99     | 916         |                             | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163844 | ATU025<br>784 | ATL8C8<br>275:96<br>5..238      | nap |  |  |  |  | 0.65 | g22244                        | 99     | 95          | 2.4e-<br>05                 | (AC005<br>489)<br>F14N23<br>.22<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163845 | ATU025<br>785 | ATL8C6<br>41:320<br>..3948      | nap |  |  |  |  | 0.64 | g35823<br>39,<br>g45824<br>89 | 99, 49 | 527,<br>642 | 1.6e-<br>50,<br>1.1e-<br>76 | (X0026<br>3)<br>uniden<br>tified<br>readin<br>g<br>frame<br>[Zea<br>mays]   |
|        |               |                                 |     |  |  |  |  |      |                               |        |             |                             | (AC005<br>496)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AL021<br>768)<br>putati<br>ve<br>protei<br>n |

|        |               |                                   |     |  |  |  |                                   |      |                               |        |             |             |   |
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| 163846 | ATU025<br>786 | ATL8C1<br>0177:1<br>..4760        | nap |  |  |  | ATL8C1<br>0177:2<br>28..47<br>33  | 0.64 | g47339<br>87,<br>g33193<br>60 | 99, 59 | 86,<br>1771 |             | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>209)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163847 | ATU025<br>787 | ATL8C3<br>0519:4<br>506..3<br>025 | nap |  |  |  | ATL8C3<br>0519:4<br>439..3<br>025 | 0.64 | g44552<br>38                  | 99     | 721         | 1.7e-<br>29 | (AL035<br>523)<br>hypoth<br>etical<br>protei  |



|        |               |                                 |     |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 163851 | ATU025<br>791 | ATL8C9<br>701:80<br>9..410      | nap |  |  |  | ATL8C9<br>701:58<br>5..410      | 0.63 | g45811<br>74 | 99 | 187 | 3.4e-<br>12 | (AC006<br>220)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 163852 | ATU025<br>792 | ATL8C2<br>4593:1<br>18..65<br>2 | nap |  |  |  | ATL8C2<br>4593:2<br>02..65<br>2 | 0.63 | g22041<br>02 | 99 | 373 | 6.4e-<br>35 | (Y1389<br>8)<br>glutat<br>hione-<br>S-<br>transf<br>erases<br>[Brass<br>ica<br>juncea<br>] |
| 163853 | ATU025<br>793 | ATL8C4<br>1360:1<br>31..54<br>3 | nap |  |  |  | ATL8C4<br>1360:3<br>55..54<br>3 | 0.63 | g46626<br>46 | 99 | 377 | 4.8e-<br>25 | (AC006<br>429)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 163854 | ATU025<br>794 | ATL8C7<br>173:33                | nap |  |  |  | ATL8C7<br>173:25                | 0.63 | g43096<br>96 | 99 | 442 | 9.8e-<br>23 | (AC006<br>266)   |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 163855 | ATU025<br>795 | ATL8S6<br>319:45<br>..386         | nap |  |  |  | 14..87<br>9                       | 0.63 | g14191<br>20 | 99 | 125 |             | hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 163856 | ATU025<br>796 | ATL8C4<br>1759:1<br>296..9<br>31  | nap |  |  |  | ATL8C4<br>1759:1<br>247..9<br>31  | 0.63 | g49268<br>16 | 99 | 357 | 2.3e-<br>34 | (Z7551<br>3)<br>revers<br>e<br>transc<br>riptas<br>e<br>[Oryza<br>sativa<br>]          |
| 163857 | ATU025<br>797 | ATL8C3<br>169:11<br>6..735        | nap |  |  |  | ATL8C3<br>169:24<br>0..388        | 0.63 | g42630<br>55 | 99 | 326 | 1.3e-<br>32 | (AC004<br>135)<br>T17H7.<br>1<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 163858 | ATU025<br>798 | ATL8C2<br>0346:1<br>623..2<br>284 | nap |  |  |  | ATL8C2<br>0346:1<br>638..2<br>135 | 0.62 | g27652<br>40 | 99 | 198 | 0.0045      | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             | (Y1280<br>5)<br>invert<br>ase  |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |  |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|---|
| 163859 | ATU025<br>799 | ATL8C2<br>0333:1<br>98..69<br>7   | nap |  |  |  |  |  | ATL8C2<br>0333:4<br>88..69<br>7   | 0.62 | g39129<br>22 | 99 | 232 | 4.3e-<br>19 | (AF001<br>308)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]        | inhibi<br>tor<br>[Nicot<br>iana<br>tabacu<br>m] |
| 163860 | ATU025<br>800 | ATL8S2<br>2387:5<br>21..59        | nap |  |  |  |  |  | ATL8S2<br>2387:4<br>97..59        | 0.62 | g46786<br>38 | 99 | 132 | 0.0012      | (AL049<br>661)<br>hypo-<br>thetical<br>protein<br>[Strep<br>tomyce<br>s<br>coelic<br>olor] |   |
| 163861 | ATU025<br>801 | ATL8C4<br>1841:5<br>009..5<br>655 | nap |  |  |  |  |  | ATL8C4<br>1841:5<br>009..5<br>655 | 0.62 | g26422<br>15 | 99 | 141 | 1.0e-<br>11 | (AF030<br>386)<br>NOI<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                      |   |
| 163862 | ATU025<br>802 | ATL8S6<br>187:90<br>..381         | nap |  |  |  |  |  | ATL8S6<br>187:18<br>9..316        | 0.62 | g33954<br>37 | 99 | 311 |             | (AC004<br>683)<br>hypo-<br>thetical  |   |



163863 ATU025 803 ATL8C9 23:196 1..100 9 nap ATL8C9 23:196 1..114 2 0.62 g33778 09 384 4.2e-38 163864 ATU025 804 ATL8C4 7243:4 nap ATL8C4 7243:4 0.62 g31525 84 625 7.9e-57

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 163863 | ATU025<br>803 | ATL8C9<br>23:196<br>1..100<br>9 | nap |  |  |  |  | ATL8C9<br>23:196<br>1..114<br>2 | 0.62 | g33778<br>09 | 99 | 384 | 4.2e-<br>38 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF075<br>597)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s<br>(DNA-<br>bindin<br>g and<br>dimeri<br>zation<br>domain<br>)<br>(PFam:<br>transc<br>riptif<br>act.hm<br>m,<br>score:<br>15.85)<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC002<br>986) |
| 163864 | ATU025<br>804 | ATL8C4<br>7243:4                | nap |  |  |  |  | ATL8C4<br>7243:4                | 0.62 | g31525<br>84 | 99 | 625 | 7.9e-<br>57 |  |

|        |               |                                   |     |  |  |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 163865 | ATU025<br>805 | 37..13<br>00                      | nap |  |  |  |  |  |  | 37..13<br>00                      | 0.62 | g45899<br>78 | 99 | 725  | 5.0e-<br>60  | YUP8H1<br>2R.31<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
|        |               | ATL8C3<br>9068:8<br>08..21        | nap |  |  |  |  |  |  | ATL8C3<br>9068:3<br>61..12<br>8   | 0.62 |              | 99 | 725  | 5.0e-<br>60  | (AC007<br>195)<br>unknown<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]          |
| 163866 | ATU025<br>806 | ATL8C3<br>0488:1<br>436..4<br>63  | nap |  |  |  |  |  |  | ATL8C3<br>0488:1<br>236..4<br>63  | 0.62 | g45824<br>64 | 99 | 1050 | 7.8e-<br>103 | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 163867 | ATU025<br>807 | ATL8C2<br>0567:7<br>227..5<br>451 | nap |  |  |  |  |  |  | ATL8C2<br>0567:7<br>227..5<br>451 | 0.62 | g32427<br>12 | 99 | 551  | 1.9e-<br>47  | (AC003<br>040)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 163868 | ATU025<br>808 | ATL8C1<br>2152:1<br>85..89<br>8   | nap |  |  |  |  |  |  | ATL8C1<br>2152:5<br>14..89<br>8   | 0.61 | g45860<br>52 | 99 | *277 | 1.1e-<br>28  | (AC007<br>020)<br>unknown   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 163869 | ATU025<br>809 | ATL8C2<br>4089:5<br>47..11<br>24 | nap |  |  |  | ATL8C2<br>4089:6<br>20..10<br>15 | 0.61 | g13619<br>86 | 99 | 122 | 6.2e-<br>09 | protein<br>[Arabidopsis<br>thaliana]  |
| 163870 | ATU025<br>810 | ATL8C1<br>0960:9<br>61..69<br>0  | nap |  |  |  | ATL8C1<br>0960:8<br>52..77<br>1  | 0.61 | g43357<br>26 | 99 | 308 | 3.9e-<br>14 | (AC006<br>248)<br>putative<br>reverse<br>transcriptase<br>[Arabidopsis<br>thaliana] |
| 163871 | ATU025<br>811 | ATL8C3<br>5846:6<br>81..21<br>1  | nap |  |  |  | ATL8C3<br>5846:6<br>81..55<br>7  | 0.61 | g43098<br>65 | 99 | 197 | 2.1e-<br>06 | (AC006<br>527)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana]              |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 163872 | ATU025<br>812 | ATL8S2<br>1187:3<br>96..33        | nap |  |  |  | ATL8S2<br>1187:3<br>96..33        | 0.61 | g12002<br>9  | 99 | 382 | 1.3e-<br>36 | FERRED<br>OXIN<br>[ ]  |
| 163873 | ATU025<br>813 | ATL8C1<br>0949:2<br>528..1<br>968 | nap |  |  |  | ATL8C1<br>0949:2<br>358..1<br>968 | 0.61 | g38057<br>59 | 99 | 376 | 1.1e-<br>17 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163874 | ATU025<br>814 | ATL8C2<br>6556:1<br>336..1<br>69  | nap |  |  |  | ATL8C2<br>6556:1<br>225..1<br>69  | 0.60 | g46783<br>02 | 99 | 395 | 9.4e-<br>47 | (AL049<br>655)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 163875 | ATU025<br>815 | ATL8C4<br>1409:9<br>57..14<br>23  | nap |  |  |  | ATL8C4<br>1409:9<br>57..10<br>79  | 0.60 | g43098<br>65 | 99 | 182 | 1.9e-<br>15 | (AC006<br>527)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163876 | ATU025<br>816 | ATL8C1<br>0699:2<br>717..5<br>17  | nap |  |  |  | ATL8C1<br>0699:2<br>717..1<br>226 | 0.60 | g36418<br>70 | 99 | 348 |             | (AJ011<br>013)<br>hypoth<br>etical<br>protei<br>n<br>[Cicer                            |

|        |               |                                  |     |  |  |  |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 163877 | ATU025<br>817 | ATL8C1<br>398:35<br>99..14<br>11 | nap |  |  |  | ATL8C1<br>398:35<br>99..14<br>11 | 0.59 | g48039<br>18                  | 99     | 581         | 8.5e-<br>29                 | arieti<br>num]<br>(AC006<br>219)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163878 | ATU025<br>818 | ATL8C7<br>769:1.<br>.887         | nap |  |  |  | ATL8C7<br>769:67<br>..887        | 0.59 | g39246<br>00,<br>g49268<br>70 | 99, 34 | 120,<br>356 | 1.4e-<br>07,<br>4.5e-<br>30 | (AF069<br>442)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC007<br>509)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163879 | ATU025<br>819 | ATL8S5<br>015:13<br>3..530       | nap |  |  |  | ATL8S5<br>015:13<br>3..530       | 0.59 | g29613<br>17                  | 99     | 114         | 1.7e-<br>08                 | (Y1193<br>2)<br>cspB<br>[Salmo<br>nella  |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |  |
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| 163880 | ATU025<br>820 | ATL8S6<br>52:78.<br>.448          | nap |  |  |  | ATL8S6<br>52:155<br>..308         | 0.59 | g45824<br>62 | 99 | 174 | 3.3e-<br>16 | typhim<br>urium]<br>(AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163881 | ATU025<br>821 | ATL8C2<br>9582:2<br>028..8<br>88  | nap |  |  |  | ATL8C2<br>9582:1<br>624..8<br>88  | 0.58 | g28326<br>47 | 99 | 544 | 1.2e-<br>46 | (AL021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 163882 | ATU025<br>822 | ATL8C4<br>6495:2<br>998..3<br>559 | nap |  |  |  | ATL8C4<br>6495:2<br>998..3<br>559 | 0.58 | g15883<br>65 | 99 | 150 | 0.56        | signal<br>peptid<br>ase:SU<br>BUNIT=<br>12kD<br>[Homo<br>sapien<br>s]                                      |
| 163883 | ATU025<br>823 | ATL8C3<br>0660:1<br>135..3<br>058 | nap |  |  |  | ATL8C3<br>0660:1<br>135..3<br>058 | 0.58 | g42637<br>15 | 99 | 322 | 6.1e-<br>30 | (AC006<br>223)<br>putati<br>ve<br>alanin<br>e<br>acetyl<br>transf<br>erase<br>[Arabi                       |

|        |               |                                 |     |  |  |  |  |  |                                 |      |              |    |     |             |  |   |
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|        |               |                                 |     |  |  |  |  |  |                                 |      |              |    |     |             |  | dopsis<br>thalia<br>nal   |
| 163884 | ATU025<br>824 | ATL8C5<br>754:24<br>68..59<br>2 | nap |  |  |  |  |  | ATL8C5<br>754:24<br>68..59<br>2 | 0.58 | g40068<br>22 | 99 | 606 |             |  | (AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal        |
| 163885 | ATU025<br>825 | ATL8C4<br>1431:7<br>56..46      | nap |  |  |  |  |  | ATL8C4<br>1431:4<br>35..22<br>3 | 0.58 | g41057<br>94 | 99 | 285 | 1.0e-<br>18 |  | (AF049<br>928)<br>PGP224<br>[Petun<br>ia x<br>hybrid<br>a]                                    |
| 163886 | ATU025<br>826 | ATL8C6<br>677:56<br>8..152      | nap |  |  |  |  |  | ATL8C6<br>677:56<br>4..202      | 0.57 | g18711<br>79 | 99 | 493 | 2.3e-<br>46 |  | (U9043<br>9)<br>FMRFam<br>ide<br>precur<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 163887 | ATU025<br>827 | ATL8C4<br>3254:9<br>80..43<br>4 | nap |  |  |  |  |  | ATL8C4<br>3254:9<br>80..61<br>1 | 0.57 | g41159<br>32 | 99 | 481 | 2.3e-<br>34 |  | (AF118<br>223)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis                   |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 163888 | ATU025<br>828 | ATL8C1<br>6987:8<br>27..11<br>0   | nap |  |  |  | ATL8C1<br>6987:6<br>33..22<br>0   | 0.57 | g47259<br>43 | 99 | 329 | 1.2e-<br>33 | thalia<br>na]<br>(AL049<br>730)<br>putati<br>ve<br>adenin<br>e<br>phosph<br>oribos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163889 | ATU025<br>829 | ATL8C3<br>7377:2<br>039..1<br>298 | nap |  |  |  | ATL8C3<br>7377:2<br>039..1<br>317 | 0.57 | g40564<br>20 | 99 | 400 |             | (AC005<br>322)<br>ESTs<br>gb T14<br>4077<br>and<br>gb T43:<br>352<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 163890 | ATU025<br>830 | ATL8S1<br>0014:7<br>8..467        | nap |  |  |  | ATL8S1<br>0014:9<br>0..199        | 0.57 | g23427<br>35 | 99 | 230 | 6.8e-<br>18 | (AC002<br>341)<br>unknow<br>n<br>protei<br>n<br>[Arabi   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |  |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|--|-----|-------------|---|
| 163891 | ATU025<br>831 | ATL8C1<br>4994:1<br>42..18<br>09 | nap |  |  |  |  | ATL8C1<br>4994:1<br>42..18<br>09 | 0.56 | g36081<br>45 | 99 |  | 158 | 1.6e-<br>09 | dopsis<br>thalia<br>na]<br>(AC005<br>314)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163892 | ATU025<br>832 | ATL8C8<br>353:34<br>6..672       | nap |  |  |  |  | ATL8C8<br>353:34<br>6..672       | 0.56 | g48039<br>22 | 99 |  | 223 | 1.0e-<br>18 | (AC006<br>264)<br>putati<br>ve<br>auxin-<br>induce<br>d<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 163893 | ATU025<br>833 | ATL8S2<br>3616:2<br>0..546       | nap |  |  |  |  | ATL8S2<br>3616:7<br>2..321       | 0.56 | g40380<br>34 | 99 |  | 179 | 3.5e-<br>06 | (AC005<br>936)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 163894 | ATU025<br>834 | ATL8S2<br>7788:6<br>1..492       | nap |  |  |  |  | ATL8S2<br>7788:8<br>7..332       | 0.56 | g26236<br>01 | 99 |  | 81  | 0.92        | (AF027<br>874)<br>mucin-<br>like  |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 163895 | ATU025<br>835 | ATL8C3<br>4905:2<br>251..1<br>761 | nap |  |  |  |  |  | ATL8C3<br>4905:2<br>251..1<br>761 | 0.56 | g30969<br>44 | 99 | 317 | 1.1e-<br>27 | protein<br>[Trypan<br>panthoma<br>cruzi]                           |
| 163896 | ATU025<br>836 | ATL8C1<br>9467:7<br>83..27<br>3   | nap |  |  |  |  |  | ATL8C1<br>9467:7<br>13..52<br>5   | 0.56 | g44689<br>82 | 99 | 419 | 5.1e-<br>32 | (AL035<br>605)<br>putative<br>protein<br>[Arabidopsis<br>thaliana] |
| 163897 | ATU025<br>837 | ATL8C5<br>0073:3<br>096..1<br>814 | nap |  |  |  |  |  | ATL8C5<br>0073:3<br>096..1<br>814 | 0.56 | g28092<br>54 | 99 | 109 | 2.1e-<br>09 | (AC002<br>560)<br>F21B7.<br>23<br>[Arabidopsis<br>thaliana]        |
| 163898 | ATU025<br>838 | ATL8C5<br>086:15<br>56..78<br>7   | nap |  |  |  |  |  | ATL8C5<br>086:15<br>56..81<br>1   | 0.56 | g29147<br>01 | 99 | 247 | 2.3e-<br>17 | (AC003<br>974)<br>putative<br>cytochrome<br>b5                     |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 163899 | ATU025<br>839 | ATL8C4<br>1211:1<br>89..12<br>86  | nap |  |  |  |  | ATL8C4<br>1211:1<br>89..12<br>86  | 0.56 | g17070<br>21 | 99 | 478 | 1.5e-<br>48 | [Arabi<br>dopsis<br>thalia<br>na]<br>(U7872<br>1)<br>Ubiqui<br>tin-<br>conjug<br>ating<br>enzyme<br>, E2-<br>16kD<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163900 | ATU025<br>840 | ATL8C4<br>1744:3<br>074..2<br>768 | nap |  |  |  |  | ATL8C4<br>1744:3<br>064..2<br>916 | 0.55 | g34452<br>11 | 99 | 288 | 2.3e-<br>24 | (AC004<br>786)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163901 | ATU025<br>841 | ATL8C3<br>2423:3<br>41..90<br>5   | nap |  |  |  |  | ATL8C3<br>2423:3<br>47..83<br>9   | 0.55 | g40068<br>23 | 99 | 174 | 1.6e-<br>13 | (AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163902 | ATU025<br>842 | ATL8C8<br>273:21                  | nap |  |  |  |  | ATL8C8<br>273:21                  | 0.55 | g47340<br>15 | 99 | 443 | 4.2e-<br>42 | (AC007<br>112)   |

|        |               |                                 |     |  |  |  |                                 |      |  |              |    |     |         |  |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--|--------------|----|-----|---------|--|
| 163903 | ATU025<br>843 | 0..129<br>4                     | nap |  |  |  | 0..129<br>4                     | 0.55 |  | g23427<br>32 | 99 | 109 |         | hypothetical protein [Arabidopsis thaliana]            |
|        |               | ATL8C5<br>810:25<br>63..13<br>0 |     |  |  |  | ATL8C5<br>810:25<br>63..13<br>0 |      |  |              |    |     |         | (AC002341) hypothetical protein [Arabidopsis thaliana] |
| 163904 | ATU025<br>844 | ATL8C5<br>0131:1<br>46..55<br>2 | nap |  |  |  | ATL8C5<br>0131:1<br>46..22<br>5 | 0.55 |  | g45593<br>64 | 99 | 401 | 1.3e-31 | (AC006585) unknown protein [Arabidopsis thaliana]      |
| 163905 | ATU025<br>845 | ATL8C9<br>819:72<br>7..9        | nap |  |  |  | ATL8C9<br>819:72<br>7..9        | 0.55 |  | g23306<br>42 | 99 | 436 | 1.1e-42 | (Y14568) tag [Pseudomonas fluorescens]                 |
| 163906 | ATU025<br>846 | ATL8C4<br>3889:3<br>11..76<br>1 | nap |  |  |  | ATL8C4<br>3889:3<br>75..59<br>2 | 0.55 |  | g45586<br>82 | 99 | 497 |         | (AC006586) hypothetical protein                        |

|        |               |                                 |     |  |  |  |                                 |       |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|-------|--------------|----|-----|-------------|---|
| 163907 | ATU025<br>847 | ATL8S4<br>22:689<br>..41        | nap |  |  |  | ATL8S4<br>22:623<br>..41        | 0.54, | g53085<br>7  | 99 | 305 | 8.1e-<br>27 | [Arabi<br>dopsis<br>thalia<br>na]<br>(U1289<br>2)<br>pilN<br>[Pseud<br>omonas<br>aerugi<br>nosa]  |
| 163908 | ATU025<br>848 | ATL8S2<br>4227:2<br>..510       | nap |  |  |  | ATL8S2<br>4227:8<br>9..510      | 0.54  | g11725<br>06 | 99 | 464 | 1.9e-<br>44 | PILG<br>PROTEI<br>N<br>[Pseud<br>omonas<br>aerugi<br>nosa]  |
| 163909 | ATU025<br>849 | ATL8C3<br>736:76<br>8..120<br>3 | nap |  |  |  | ATL8C3<br>736:76<br>8..120<br>3 | 0.54  | g15321<br>63 | 99 | 427 | 2.0e-<br>40 | (U6381<br>5)<br>simila<br>r to<br>glutar<br>edoxin<br>encode<br>d by<br>GenBan<br>k<br>Access<br>ion<br>Number<br>Z49699<br>; locali<br>zed<br>accord<br>ing to<br>blastn<br>simila<br>rity |



|        |               |                                  |     |  |  |  |  |                                  |      |  |                  |                      |   |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--|------------------|----------------------|---|--|
| 163912 | ATU025<br>852 | ATL8C3<br>0793:4<br>20..12<br>11 | nap |  |  |  |  | ATL8C3<br>0793:5<br>32..12<br>11 | 0.54 | g46626<br>46                                   | 99               | 507                  | 1.2e-<br>29                                 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC006<br>429)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163913 | ATU025<br>853 | ATL8C3<br>9165:1<br>..3191       | nap |  |  |  |  | ATL8C3<br>9165:7<br>7..295<br>A  | 0.54 | g30470<br>93,<br>g47340<br>12,<br>g45672<br>96 | 99, 82<br>99, 82 | 1112,<br>482,<br>348 | 1.1e-<br>95,<br>1.1e-<br>32,<br>1.2e-<br>28 | (AF058<br>826)<br>T26D22<br>.5<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC007<br>112)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>918)<br>putati<br>ve |

|        |               |                                  |     |  |  |  |  |  |  |      |                               |        |            |                             |  |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|------|-------------------------------|--------|------------|-----------------------------|--|---|
| 163914 | ATU025<br>854 | ATL8S2<br>0900:5<br>86..1        | nap |  |  |  |  |  |  | 0.54 | g39414<br>54                  | 99     | 826        | 4.6e-<br>77                 | (AF062<br>881)<br>putati<br>ve transc<br>riptio<br>n factor<br>[Arabi<br>dopsis<br>thalia<br>na] | Athila<br>retroel<br>ement<br>ORF1<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 163915 | ATU025<br>855 | ATL8C3<br>8462:8<br>59..30       | nap |  |  |  |  |  |  | 0.53 | g45586<br>75                  | 99     | 314        | 7.4e-<br>10                 | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]              | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 163916 | ATU025<br>856 | ATL8C2<br>6233:2<br>157..8<br>45 | nap |  |  |  |  |  |  | 0.53 | g45394<br>61,<br>g45126<br>22 | 99, 53 | 171,<br>82 | 1.4e-<br>16,<br>4.2e-<br>06 | (AL049<br>500)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]              | (AL049<br>500)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |



|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 163917 | ATU025<br>857 | ATL8C3<br>4783:1<br>648..3<br>27  | nap |  |  |  |  |  | ATL8C3<br>4783:1<br>648..3<br>86  | 0.53 | g45389<br>13 | 99 | 255 | 3.2e-<br>21 | thalia<br>nal;<br>(AC004<br>793)<br>F28K20<br>.11<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163918 | ATU025<br>858 | ATL8C1<br>9412:1<br>..565         | nap |  |  |  |  |  | ATL8C1<br>9412:1<br>06..56<br>5   | 0.53 | g39534<br>76 | 99 | 340 | 6.7e-<br>28 | (AL049<br>482)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]     |
| 163919 | ATU025<br>859 | ATL8C4<br>7142:3<br>014..1<br>025 | nap |  |  |  |  |  | ATL8C4<br>7142:3<br>014..1<br>025 | 0.53 | g39351<br>40 | 99 | 190 | 2.7e-<br>21 | (AC002<br>328)<br>F2202.<br>21<br>[Arabi<br>dopsis<br>thalia<br>nal]                    |
| 163920 | ATU025<br>860 | ATL8C2<br>5249:2<br>773..3<br>201 | nap |  |  |  |  |  | ATL8C2<br>5249:2<br>776..3<br>153 | 0.52 | g22528<br>57 | 99 | 115 | 0.0020      | (AC005<br>106)<br>T25N20<br>.4<br>[Arabi<br>dopsis<br>thalia<br>nal]                    |
|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             | (AF013<br>294)<br>simila<br>r to  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 163921 | ATU025<br>861 | ATL8C7<br>58:129<br>8..844       | nap |  |  |  |  | ATL8C7<br>58:120<br>0..844       | 0.52 | g42635<br>19 | 99 | 403 | 1.4e-<br>29 | acidic<br>riboso<br>mal<br>protei<br>n pl<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 163922 | ATU025<br>862 | ATL8C4<br>2521:1<br>75..30<br>27 | nap |  |  |  |  | ATL8C4<br>2521:1<br>75..21<br>00 | 0.52 | g47339<br>87 | 99 | 146 | 4.5e-<br>08 | (AC007<br>209)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163923 | ATU025<br>863 | ATL8C6<br>741:15<br>69..59<br>4  | nap |  |  |  |  | ATL8C6<br>741:13<br>41..59<br>4  | 0.52 | g28651<br>75 | 99 | 636 | 8.7e-<br>64 | (AB010<br>945)<br>AtRer1<br>A<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 163924 | ATU025        | ATL8C1                           | nap |  |  |  |  | ATL8C1                           | 0.52 | g40565       | 99 | 62  | 7.6e-       | (AC005   |

|        |               |                           |     |  |  |  |  |  |                            |              |    |     |  |  |  |  |  |             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|----------------------------|--------------|----|-----|--|--|--|--|--|-------------|--|
| 163925 | 864           | 3767:2<br>4..956          |     |  |  |  |  |  | 3767:1<br>49..956          | 04           |    |     |  |  |  |  |  | 05          | 896)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal   |
|        | ATU025<br>865 | ATL8S2<br>4424:4<br>95..7 | nap |  |  |  |  |  | ATL8S2<br>4424:4<br>58..7  | g22889<br>81 | 99 | 609 |  |  |  |  |  | 4.6e-<br>60 | (AC002<br>335)<br>calciu<br>m<br>bindin<br>g<br>protei<br>n<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>nal                               |
| 163926 | ATU025<br>866 | ATL8S5<br>530:2.<br>.429  | nap |  |  |  |  |  | ATL8S5<br>530:14<br>2..387 | g13044<br>86 | 99 | 346 |  |  |  |  |  | 3.4e-<br>33 | (U3897<br>8)<br>homolo<br>g to<br>2-<br>hydrox<br>yhepta<br>-2,4-<br>diene-<br>1,7-<br>dioate<br>isomer<br>ase;<br>Method<br>:<br>concep |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |   |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|---|
| 163927 | ATU025<br>867 | ATL8C4<br>8301:1<br>005..1<br>338 | nap |  |  |  |  | ATL8C4<br>8301:1<br>159..1<br>338 | 0.51 | g34510<br>73 | 99 | 232 | 1.0e-<br>05 | (AL031<br>326)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] | tual<br>transl<br>ation<br>suppli<br>ed by<br>author<br>.<br>[napht<br>halene<br>sulfon<br>ate-<br>degrad<br>ing<br>bacter<br>ium<br>BN6] |
| 163928 | ATU025<br>868 | ATL8C4<br>9754:1<br>430..2<br>2   | nap |  |  |  |  | ATL8C4<br>9754:1<br>424..2<br>2   | 0.51 | g39351<br>40 | 99 | 104 | 1.6e-<br>09 | (AC005<br>106)<br>T25N20<br>.4<br>[Arabi<br>dopsis<br>thalia<br>nal]                |   |
| 163929 | ATU025<br>869 | ATL8C2<br>367:84<br>..2106        | nap |  |  |  |  | ATL8C2<br>367:35<br>8..210<br>6   | 0.51 | g45103<br>50 | 99 | 229 | 1.9e-<br>18 | (AC006<br>921)<br>hypoth<br>etical<br>protei<br>n                                   |   |

|        |               |                            |     |  |  |  |  |  |                                 |      |                               |        |              |                              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|-------------------------------|--------|--------------|------------------------------|---|
| 163930 | ATU025<br>870 | ATL8S7<br>757:26<br>..454  | nap |  |  |  |  |  | ATL8S7<br>757:35<br>2..52       | 0.51 | g17305<br>96                  | 99     | 283          | 5.7e-<br>22                  | [Arabi<br>dopsis<br>thalia<br>na]<br>HYPOTH<br>ETICAL<br>16.6<br>KD<br>PROTEI<br>N IN<br>RPMF-<br>FTSL<br>INTERG<br>ENIC<br>REGION<br>[Bacil<br>lus<br>subtil<br>is]                  |
| 163931 | ATU025<br>871 | ATL8C1<br>0862:1<br>..4342 | nap |  |  |  |  |  | ATL8C1<br>0862:9<br>4..434<br>2 | 0.51 | g30803<br>59,<br>g42636<br>55 | 99, 98 | 207,<br>2170 | 3.7e-<br>17,<br>7.6e-<br>221 | (Al022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>136)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis |

|        |               |                                     |     |  |  |  |  |  |                                     |      |                               |        |              |                        |  |
|--------|---------------|-------------------------------------|-----|--|--|--|--|--|-------------------------------------|------|-------------------------------|--------|--------------|------------------------|--|
| 163932 | ATU025<br>872 | ATL8C1<br>6760:1<br>987..1<br>212   | nap |  |  |  |  |  | ATL8C1<br>6760:1<br>987..1<br>212   | 0.50 | g45899<br>75                  | 99     | 369          | 5.4e-<br>34            | thalia<br>nal<br>(AC007<br>195)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 163933 | ATU025<br>873 | ATL8C4<br>1805:6<br>166..1<br>3485  | nap |  |  |  |  |  | ATL8C4<br>1805:6<br>166..1<br>3485  | 0.50 | g46626<br>46,<br>g42635<br>43 | 99, 86 | 110,<br>2512 | 0.020,<br>6.3e-<br>179 | (AC006<br>429)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>250)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163934 | ATU025<br>874 | ATL8C4<br>1994:1<br>1330..<br>10524 | nap |  |  |  |  |  | ATL8C4<br>1994:1<br>1327..<br>10614 | 0.50 | g45586<br>84                  | 99     | 512          | 5.2e-<br>10            | (AC006<br>586)<br>hypoth<br>etical   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 163935 | ATU025<br>875 | ATL8C1<br>8005:6<br>4..103<br>5   | nap |  |  |  |  | ATL8C1<br>8005:2<br>47..10<br>35  | 0.50 | g40068<br>22 | 99 | 573 | 1.3e-<br>60 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163936 | ATU025<br>876 | ATL8C3<br>8990:1<br>679..7<br>7   | nap |  |  |  |  | ATL8C3<br>8990:1<br>679..2<br>22  | 0.50 | g36177<br>42 | 99 | 274 | 8.5e-<br>15 | (AC005<br>687)<br>RAP2.6<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163937 | ATU025<br>877 | ATL8C3<br>4236:2<br>715..1<br>354 | nap |  |  |  |  | ATL8C3<br>4236:2<br>715..1<br>354 | 0.50 | g23985<br>33 | 99 | 277 | 1.0e-<br>23 | (Y1372<br>5)<br>Transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163938 | ATU025<br>878 | ATL8C4<br>3561:3<br>662..2<br>334 | nap |  |  |  |  | ATL8C4<br>3561:3<br>662..2<br>334 | 0.50 | g45103<br>61 | 99 | 444 |             | (AC007<br>017)<br>putati<br>ve<br>DNA-<br>bindin<br>g  |

|        |               |                                  |     |  |  |  |  |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 163939 | ATU025<br>879 | ATL8S2<br>4810:1<br>07..49<br>9  | nap |  |  |  |  | ATL8S2<br>4810:1<br>70..28<br>4  | 0.49 | g24941<br>17                  | 99     | 180         | 2.6e-<br>17                 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 163940 | ATU025<br>880 | ATL8C3<br>8262:5<br>03..83<br>6  | nap |  |  |  |  | ATL8C3<br>8262:5<br>44..83<br>5  | 0.49 | g40975<br>55                  | 99     | 245         | 4.0e-<br>24                 | (U6491<br>0)<br>ATFP7<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163941 | ATU025<br>881 | ATL8C3<br>9342:4<br>477..9<br>49 | nap |  |  |  |  | ATL8C3<br>9342:4<br>287..9<br>49 | 0.49 | g47261<br>15,<br>g44173<br>05 | 99, 59 | 514,<br>547 | 8.4e-<br>38,<br>9.7e-<br>45 | (AC006<br>436)<br>hypoth<br>etical<br>protein              |





|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |   |
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| 163945 | ATU025<br>885 | ATL8S2<br>6690:6<br>90..93        | nap |  |  |  |  |  | ATL8S2<br>6690:6<br>90..93        | 0.47 | g38113<br>13 | 99 | 217 | [Arabi<br>dopsis<br>thalia<br>na]   |
| 163946 | ATU025<br>886 | ATL8C2<br>4365:2<br>01..67<br>8   | nap |  |  |  |  |  | ATL8C2<br>4365:3<br>06..64<br>2   | 0.47 | g46626<br>46 | 99 | 546 | (AC006<br>429)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163947 | ATU025<br>887 | ATL8C2<br>9675:1<br>045..3<br>140 | nap |  |  |  |  |  | ATL8C2<br>9675:1<br>045..3<br>140 | 0.47 | g22449<br>26 | 99 | 326 | (Z9733<br>9)<br>glutar<br>edoxin<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 163948 | ATU025<br>888 | ATL8S2<br>920:15<br>5..565        | nap |  |  |  |  |  | ATL8S2<br>920:17<br>6..541        | 0.47 | g11967<br>52 | 99 | 109 | (M2491<br>6)<br>ORF;<br>putati<br>ve<br>[Pseud<br>omonas<br>putida<br>]             |
| 163949 | ATU025<br>889 | ATL8S1<br>0104:7                  | nap |  |  |  |  |  | ATL8S1<br>0104:8                  | 0.47 | g37859<br>83 | 99 | 376 | (AC005<br>560)  |

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|--------|---------------|----------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 163950 | ATU025<br>890 | ATL8C2<br>5221:1<br>213..1<br>82 | nap |  |  |  |  | 0..526                          | 0.47 | g48357<br>79 | 99 | 146 | 6.9e-<br>12 | hypothetical protein [Arabis thaliana]   |
| 163951 | ATU025<br>891 | ATL8C2<br>3526:5<br>35..28<br>6  | nap |  |  |  |  | ATL8C2<br>3526:5<br>35..28<br>6 | 0.47 | g15321<br>67 | 99 | 227 | 8.7e-<br>19 | (U63815) localized according to blastn similarity to EST sequences; therefore, the coding span corresponds only to an area of simila |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |     |             |  |  |   |
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| 163952 | ATU025<br>892 | ATL8C1<br>0505:3<br>67..77       | nap |  |  |  |  |  | ATL8C1<br>0505:3<br>67..77       | 0.47 | g30435<br>36 | 99 | 302 |             |  |  | rity<br>since<br>the<br>initat<br>ion<br>codon<br>and<br>stop<br>codon<br>could<br>not be<br>precis<br>ely<br>determ<br>ined<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163953 | ATU025<br>893 | ATL8C3<br>3896:4<br>607..2<br>44 | nap |  |  |  |  |  | ATL8C3<br>3896:4<br>607..9<br>66 | 0.46 | g40380<br>64 | 99 | 174 |             |  |  | (AC005<br>897)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163954 | ATU025<br>894 | ATL8S1<br>8902:1<br>28..52<br>4  | nap |  |  |  |  |  | ATL8S1<br>8902:1<br>34..28<br>9  | 0.46 | g14026<br>9  | 99 | 180 | 5.3e-<br>14 |  |  | HYPOTH<br>ETICAL<br>15.6<br>KD  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 163955 | ATU025<br>895 | ATL8C4<br>7560:5<br>37..19<br>35 | nap |  |  |  |  |  | ATL8C4<br>7560:5<br>37..19<br>35 | 0.46 | g13139<br>24,<br>g19463<br>69 | 99, 50 | 164,<br>151 | 1.5e-<br>09,<br>1.1e-<br>09 | (X9767<br>6) non<br>interm<br>ediate<br>filame<br>nt IFA<br>bindin<br>g protei<br>n [Brass<br>ica<br>olerac<br>eal;<br>(U9321<br>5)<br>unknow<br>n protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 163956 | ATU025<br>896 | ATL8C3<br>121:90<br>3..33        | nap |  |  |  |  |  | ATL8C3<br>121:90<br>3..147       | 0.46 | g30634<br>39                  | 99     | 140         | 8.0e-<br>09                 | (AC003<br>981)<br>F22013<br>.1<br>[Arabi<br>dopsis<br>thalia<br>na]  |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 163957 | ATU025<br>897 | ATL8C1<br>2300:9<br>37..46<br>2   | nap |  |  |  | ATL8C1<br>2300:8<br>98..55<br>2   | 0.46 | g10820<br>54 | 99 | 424 | 1.6e-<br>43 | thalia<br>nal<br>(Z4985<br>9)<br>copper<br>transp<br>orter<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163958 | ATU025<br>898 | ATL8C4<br>9675:2<br>469..1<br>862 | nap |  |  |  | ATL8C4<br>9675:2<br>469..1<br>862 | 0.45 | g45393<br>80 | 99 | 820 | 1.0e-<br>55 | (AL035<br>526)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                             |
| 163959 | ATU025<br>899 | ATL8C4<br>1724:6<br>55..13        | nap |  |  |  | ATL8C4<br>1724:4<br>24..13        | 0.45 | g45444<br>26 | 99 | 337 | 3.4e-<br>33 | (AC006<br>955)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>nal]                         |
| 163960 | ATU025<br>900 | ATL8C1<br>3179:3<br>72..67        | nap |  |  |  | ATL8C1<br>3179:3<br>72..13<br>3   | 0.45 | g19463<br>65 | 99 | 448 | 4.3e-<br>42 | (U9321<br>5)<br>glutar<br>edoxin<br>isolog<br>[Arabi<br>dopsis]   |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 163961 | ATU025<br>901 | ATL8C1<br>1291:1<br>451..8<br>84  | nap |  |  |  | ATL8C1<br>1291:1<br>432..8<br>84  | 0.45 | g45811<br>45 | 99 | 309 | 7.6e-<br>24 | thalia<br>na]<br>(AC006<br>919)<br>putati<br>ve<br>transc<br>riptio<br>nal<br>acativ<br>ator<br>CBF1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163962 | ATU025<br>902 | ATL8C3<br>5623:3<br>233..2<br>330 | nap |  |  |  | ATL8C3<br>5623:3<br>213..2<br>333 | 0.45 | g41057<br>94 | 99 | 127 | 0.072       | (AF049<br>928)<br>PGP224<br>[Petun<br>ia x<br>hybrid<br>a]  |
| 163963 | ATU025<br>903 | ATL8C1<br>1867:1<br>805..3<br>1   | nap |  |  |  | ATL8C1<br>1867:1<br>805..3<br>1   | 0.45 | g25058<br>76 | 99 | 342 | 1.1e-<br>25 | (Y1277<br>6)<br>MYB-<br>relate<br>d<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 163964 | ATU025<br>904 | ATL8S1<br>5906:5<br>33..25        | nap |  |  |  | ATL8S1<br>5906:4<br>67..25        | 0.45 | g39155<br>10 | 99 | 310 | 1.9e-<br>29 | HYPOTH<br>ETICAL<br>17.7<br>KD<br>PROTEI<br>N IN  |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |             |   |
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| 163965 | ATU025<br>905 | ATL8C4<br>7569:3<br>05..88<br>3 | nap |  |  |  |  | ATL8C4<br>7569:3<br>05..88<br>3 | 0.44 | g45859<br>63 | 99 | 1028 | 9.7e-<br>93 | LPD<br>3'REGI<br>ON.<br>(ORF6)<br>[Zymom<br>onas<br>mobili<br>s]  |
| 163966 | ATU025<br>906 | ATL8S4<br>338:14<br>..524       | nap |  |  |  |  | ATL8S4<br>338:71<br>..490       | 0.44 | g27646<br>34 | 99 | 158  | 2.1e-<br>15 | (AJ001<br>630)<br>thiami<br>ne<br>phosph<br>ate<br>syntha<br>se<br>[Strep<br>tomyce<br>s<br>livida<br>ns] |
| 163967 | ATU025<br>907 | ATL8C7<br>267:13<br>58..77<br>0 | nap |  |  |  |  | ATL8C7<br>267:13<br>58..94<br>1 | 0.43 | g38057<br>59 | 99 | 201  | 1.2e-<br>12 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia                           |



|        |               |                                   |     |  |  |  |                                   |      |  |              |    |  |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--|--------------|----|--|-----|-------------|--|
| 163968 | ATU025<br>908 | ATL8S2<br>8088:1<br>8..548        | nap |  |  |  | ATL8S2<br>8088:1<br>8..505        | 0.43 |  | g28515<br>49 | 99 |  | 253 | 5.5e-<br>22 | CSAA<br>PROTEI<br>N<br>[Bacil<br>lus<br>subtil<br>is]                                  |
| 163969 | ATU025<br>909 | ATL8C1<br>2568:1<br>294..1<br>775 | nap |  |  |  | ATL8C1<br>2568:1<br>399..1<br>682 | 0.43 |  | g46626<br>46 | 99 |  | 383 | 5.2e-<br>24 | (AC006<br>429)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163970 | ATU025<br>910 | ATL8C1<br>8063:6<br>69..10<br>3   | nap |  |  |  | ATL8C1<br>8063:5<br>16..18<br>3   | 0.43 |  | g44172<br>70 | 99 |  | 172 | 6.2e-<br>16 | (AC007<br>019)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163971 | ATU025<br>911 | ATL8C2<br>4887:6<br>48..38        | nap |  |  |  | ATL8C2<br>4887:6<br>48..38        | 0.43 |  | g25589<br>62 | 99 |  | 475 | 1.2e-<br>35 | (AF025<br>667)<br>histon<br>e H2B1<br>[Gossy<br>pium<br>hirsut<br>um]                  |
| 163972 | ATU025<br>912 | ATL8C2<br>9091:5<br>21..13        | nap |  |  |  | ATL8C2<br>9091:1<br>84..17<br>1   | 0.43 |  | g42630<br>57 | 99 |  | 404 | 5.7e-<br>30 | (AC005<br>142)<br>hypoth<br>etical   |

|        |               |                                   |     |  |  |  |                                   |      |                               |        |             |                             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 163973 | ATU025<br>913 | ATL8C3<br>0618:1<br>730..2<br>323 | nap |  |  |  | ATL8C3<br>0618:2<br>135..2<br>210 | 0.43 | g44690<br>25                  | 99     | 228         | 3.2e-<br>21                 | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AL035<br>602)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 163974 | ATU025<br>914 | ATL8C4<br>0816:8<br>15..38<br>7   | nap |  |  |  | ATL8C4<br>0816:7<br>61..43<br>1   | 0.43 | g36881<br>85                  | 99     | 216         | 2.1e-<br>10                 | (AL031<br>804)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 163975 | ATU025<br>915 | ATL8C2<br>4356:5<br>0..396<br>4   | nap |  |  |  | ATL8C2<br>4356:5<br>0..290<br>3   | 0.42 | g47340<br>12,<br>g43098<br>68 | 99, 89 | 531,<br>317 | 5.9e-<br>22,<br>1.4e-<br>22 | (AC007<br>112)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC006<br>527)<br>putati<br>ve               |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 163976 | ATU025<br>916 | ATL8C4<br>4542:3<br>07..36<br>59 | nap |  |  |  |  |  | ATL8C4<br>4542:5<br>66..36<br>50 | 0.42 | g16849<br>13 | 99 | 2293 | 9.7e-<br>217 | retro-<br>transpo-<br>son-like<br>orf<br>[Arabidopsis<br>thaliana<br>na]                    |
| 163977 | ATU025<br>917 | ATL8S1<br>4977:6<br>71..10       | nap |  |  |  |  |  | ATL8S1<br>4977:6<br>71..10       | 0.42 | g33415<br>78 | 99 | 351  | 6.3e-<br>32  | (U7788<br>8)<br>receptor-<br>like<br>protein<br>kinase<br>[Ipomoea<br>nil]                  |
| 163978 | ATU025<br>918 | ATL8C5<br>494:13<br>..1392       | nap |  |  |  |  |  | ATL8C5<br>494:35<br>5..139<br>2  | 0.41 | g45811<br>71 | 99 | 599  | 1.2e-<br>17  | (AJ231<br>091)<br>z29f<br>[Vibrio<br>cholerae]  |
| 163979 | ATU025        | ATL8S2                           | nap |  |  |  |  |  | ATL8S2                           | 0.41 | g13372       | 99 | 230  | 2.6e-        | (AC006<br>220)<br>putative<br>glycine<br>rich<br>protein<br>[Arabidopsis<br>thaliana<br>na] |
|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              | CHLORO  |

|        | 919           | 9969:5<br>53..14<br>0             |     |  |  | 9969:4<br>53..29<br>5   |               | 8   |                      |                             | 17  | PLAST<br>30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S11<br>[Spina<br>cia<br>olerac<br>ea]  |
|--------|---------------|-----------------------------------|-----|--|--|---|---------------|---|----------------------|-----------------------------|---|---|
| 163980 | ATU025<br>920 | ATL8S1<br>9714:4<br>96..15<br>5   | nap |  |  | ATL8S1<br>9714:4<br>50..16<br>3   | 0.41          | g28967<br>71  | 99                   | 112                         | 1.7e-<br>08   | (AL021<br>899)<br>hypoth<br>etical<br>protei<br>n<br>Rv2034<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]  |
| 163981 | ATU025<br>921 | ATL8C1<br>4540:8<br>341..1<br>475 | nap |  |  | ATL8C1<br>4540:6<br>773..1<br>593,<br>ATL8C1<br>4540:8<br>301..7<br>111 | 0.40,<br>0.47 | g43098<br>65,<br>g40380<br>66,<br>g45672<br>98,<br>g47739<br>10 | 99,<br>98,<br>91, 54 | 574,<br>118,<br>2666,<br>91 | 2.1e-<br>52,<br>0.39,<br>7.9e-<br>216,<br>0.0005<br>6 | (AC006<br>527)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi |



|        |               |                                 |     |  |  |  |  |  |  |  |  |              |    |     |             |   |
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| 163984 | ATU025<br>924 | ATL8C4<br>3204:9<br>06..35<br>2 | nap |  |  |  |  |  |  |  |  | 936680<br>78 | 99 | 176 | 7.7e-<br>15 | (AC004<br>667)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 163985 | ATU025<br>925 | ATL8C3<br>2016:8<br>34..11<br>6 | nap |  |  |  |  |  |  |  |  | 942493<br>80 | 99 | 465 | 7.0e-<br>43 | (AC005<br>966)<br>ESTs<br>gb Z37<br>637,<br>gb AA0<br>42498<br>and<br>gb AA0<br>42269<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 163986 | ATU025<br>926 | ATL8C4<br>3593:9<br>13..32<br>8 | nap |  |  |  |  |  |  |  |  | 945103<br>78 | 99 | 263 |             | (AC007<br>017)<br>hypoth<br>etical  |







|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 163995 | ATU025<br>935 | ATL8C4<br>2856:4<br>352..4<br>651 | nap |  |  |  |  |  |  |  |  |  | g34452<br>11 | 99 | 273 | 2.0e-<br>12 | influenzae<br>Rd]  |
| 163996 | ATU025<br>936 | ATL8S2<br>3670:4<br>57..11<br>3   | nap |  |  |  |  |  |  |  |  |  | g23378<br>31 | 99 | 229 | 1.6e-<br>07 | (Z9860<br>4)<br>hypothetical<br>protein<br>MLCB20<br>52.25c<br>[Mycobacterium<br>leprae] |
| 163997 | ATU025<br>937 | ATL8C4<br>9897:3<br>10..56<br>0   | nap |  |  |  |  |  |  |  |  |  | g49268<br>17 | 99 | 103 | 0.015       | (AC004<br>135)<br>T17H7.<br>2<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 163998 | ATU025<br>938 | ATL8S5<br>54:159<br>..486         | nap |  |  |  |  |  |  |  |  |  | g32489<br>65 | 99 | 189 | 7.9e-<br>07 | (AF064<br>958)<br>unknown<br>[Coxiella]  |

|        |               |                                   |     |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 163999 | ATU025<br>939 | ATL8C2<br>527:69<br>5..280        | nap |  |  |  |  |  |  |  | g18711<br>79 | 99 | 361 | 3.1e-<br>24 | (U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164000 | ATU025<br>940 | ATL8C4<br>7245:1<br>444..1<br>083 | nap |  |  |  |  |  |  |  | g13600<br>88 | 99 | 340 | 2.1e-<br>29 | (X9794<br>7) Zn<br>finger<br>protei<br>n<br>[Nicot<br>iana<br>tabacu<br>m]                   |
| 164001 | ATU025<br>941 | ATL8C3<br>3936:8<br>02..13<br>26  | nap |  |  |  |  |  |  |  | g38057<br>59 | 99 | 271 |             | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 164002 | ATU025<br>942 | ATL8C8<br>02:165<br>0..105<br>8   | nap |  |  |  |  |  |  |  | g22136<br>10 | 99 | 274 | 2.5e-<br>20 | (AC000<br>103)<br>F21J9.<br>4<br>[Arabi<br>dopsis<br>thalia<br>na]                           |

|        |               |                                   |     |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164003 | ATU025<br>943 | ATL8C3<br>2408:2<br>034..1<br>618 | nap |  |  |  |  |  | g18711<br>79 | 99 | 355 | 3.7e-<br>25 | (U9043<br>9)<br>FMRFam<br>ide<br>precur<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164004 | ATU025<br>944 | ATL8C5<br>820:1.<br>.450          | nap |  |  |  |  |  | g80929<br>8  | 99 | 298 |             | Calmod<br>ulin<br>(Param<br>ecium<br>Tetrau<br>relia)<br>(Wild<br>Type)<br>[]                 |
| 164005 | ATU025<br>945 | ATL8S5<br>66:54.<br>.332          | nap |  |  |  |  |  | g13280<br>8  | 99 | 228 | 4.8e-<br>08 | CHLORO<br>PLAST<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L23<br>[Nicot<br>iana<br>tabacu<br>m]  |
| 164006 | ATU025<br>946 | ATL8C3<br>5339:1<br>579..4<br>67  | nap |  |  |  |  |  | g30986<br>13 | 99 | 103 | 4.8e-<br>05 | (AF053<br>065)<br>late<br>embryo<br>genesi<br>s<br>abunda<br>nt<br>protei                     |





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|--------|---------------|------------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164010 | ATU025<br>950 | ATL8C4<br>5860:5<br>95...20<br>5   | nap |  |  |  |  |  |  | g48862<br>75 | 99 | 91  | 3.5e-<br>07 | (AL050<br>300)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164011 | ATU025<br>951 | ATL8C3<br>0645:3<br>503...3<br>200 | nap |  |  |  |  |  |  | g42204<br>78 | 99 | 174 | 1.1e-<br>15 | (AC006<br>069)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164012 | ATU025<br>952 | ATL8C2<br>2932:5<br>40...10<br>13  | nap |  |  |  |  |  |  | g24941<br>17 | 99 | 130 | 9.2e-<br>11 | (AC002<br>376)<br>Contai<br>ns<br>simila<br>rity<br>to<br>Papave<br>r S3<br>self-<br>incomp<br>atibil<br>ity<br>protei<br>n<br>(gb X8<br>7100).<br>[Arabi<br>dopsis<br>thalia |

|        |               |                                  |     |  |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164013 | ATU025<br>953 | ATL8C4<br>72:392<br>3..567<br>1  | nap |  |  |  |  |  |  |  | g47339<br>87 | 99 | 156 | 2.9e-<br>09 | na]<br>(AC007<br>209)<br>hypo-<br>thetical<br>protein<br>[Arabi-<br>dopsis<br>thaliana<br>na] |
| 164014 | ATU025<br>954 | ATL8C6<br>971:15<br>66..99<br>4  | nap |  |  |  |  |  |  |  | g37859<br>87 | 99 | 520 | 1.5e-<br>33 | (AC005<br>560)<br>hypo-<br>thetical<br>protein<br>[Arabi-<br>dopsis<br>thaliana<br>na]        |
| 164015 | ATU025<br>955 | ATL8S1<br>5995:3<br>17..93       | nap |  |  |  |  |  |  |  | g21298<br>42 | 99 | 215 | 4.9e-<br>16 | SE60<br>protein<br>-<br>soybean<br>[Glycine<br>max]   |
| 164016 | ATU025<br>956 | ATL8C4<br>8311:7<br>40..10<br>90 | nap |  |  |  |  |  |  |  | g29823<br>20 | 99 | 260 | 2.2e-<br>20 | (AF051<br>245)<br>hypo-<br>thetical<br>protein<br>[Picea<br>mariana<br>a]                     |
| 164017 | ATU025<br>957 | ATL8C3<br>2738:1                 | nap |  |  |  |  |  |  |  | g43097<br>66 | 99 | 539 | 1.2e-<br>42 | (AC006<br>217)  |











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|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|--|--|
|        | 972           | 9483:9<br>..547                  |     |  |  |  |  |  |  | 15           |    |     |             | 25   | ATE<br>KINASE<br>(SK)<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd] |
| 164033 | ATU025<br>973 | ATL8C1<br>6403:5<br>44..25       | nap |  |  |  |  |  |  | g45824<br>62 | 99 | 111 | 1.9e-<br>05 | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164034 | ATU025<br>974 | ATL8C9<br>967:18<br>46..13<br>17 | nap |  |  |  |  |  |  | g38057<br>59 | 99 | 243 | 1.5e-<br>17 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164035 | ATU025<br>975 | ATL8S2<br>3709:1<br>38..35<br>6  | nap |  |  |  |  |  |  | g13133<br>2  | 99 | 111 | 3.7e-<br>06 | PHOTOS<br>YSTEM<br>II 10<br>KD<br>PHOSPH<br>OPROTE<br>IN<br>[Oryza<br>sativa<br>]      |  |
| 164036 | ATU025<br>976 | ATL8C1<br>0319:4                 | nap |  |  |  |  |  |  | g18711<br>79 | 99 | 138 |             | (U9043<br>9)   |  |



|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|--|
| 164039 | ATU025<br>979 | ATL8S7<br>230:92<br>..391        | nap |  |  |  |  |  |  |  |  |  | g44067<br>72 | 99 | 220 | 1.5e-<br>21 | (AC006<br>836)<br>putati<br>ve<br>nitril<br>ase-<br>associ<br>ated<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  | benzod<br>iazepi<br>ne<br>recept<br>or<br>Tspo<br>[Helio<br>bacill<br>us<br>mobili<br>s] |
| 164040 | ATU025<br>980 | ATL8C1<br>7404:1<br>123..8<br>21 | nap |  |  |  |  |  |  |  |  |  | g48742<br>79 | 99 | 107 | 9.2e-<br>11 | (AC007<br>354)<br>ESTs<br>gb T75<br>618<br>and<br>gb AA4<br>04816<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |  |

[illegible][illegible]

|        |               |                                 |     |  |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164046 | ATU025<br>986 | ATL8C9<br>521:98<br>1..133<br>9 | nap |  |  |  |  |  |  |  | g44688<br>16 | 99 | 271 | 9.0e-<br>24 | (AL035<br>601)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164047 | ATU025<br>987 | ATL8S2<br>4578:5<br>54..15<br>1 | nap |  |  |  |  |  |  |  | g43887<br>25 | 99 | 544 | 7.0e-<br>43 | (AC006<br>413)<br>putati<br>ve S1<br>self-<br>incomp<br>atibil<br>ity<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164048 | ATU025<br>988 | ATL8C7<br>134:80<br>9..128<br>6 | nap |  |  |  |  |  |  |  | g30803<br>57 | 99 | 473 | 7.3e-<br>09 | (AL022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |





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|--------|---------------|------------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164053 | ATU025<br>993 | ATL8C8<br>39:192<br>..557          | nap |  |  |  |  |  |  | g21601<br>34 | 99 | 564 | 2.3e-<br>27 | frame<br>[Zea<br>mays]<br>(AC000<br>375)<br>EST<br>gb ATT<br>S0309<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164054 | ATU025<br>994 | ATL8C4<br>7439:9<br>862..1<br>0453 | nap |  |  |  |  |  |  | g30470<br>70 | 99 | 483 | 1.1e-<br>44 | (AF058<br>825)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164055 | ATU025<br>995 | ATL8S8<br>230:50<br>1..67          | nap |  |  |  |  |  |  | g17310<br>61 | 99 | 361 | 7.4e-<br>31 | HYPOTH<br>ETICAL<br>16.2<br>KD<br>PROTEI<br>N IN<br>BMRU-<br>ANSR<br>INTERG<br>ENIC<br>REGION<br>[Bacil<br>lus]                           |

|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 164056 | ATU025<br>996 | ATL8C2<br>6473:2<br>07..46<br>6   | nap |  |  |  |  |  |  |  |  | g36954<br>08 | 99 | 268 | 7.4e-<br>19 | subtil<br>is]<br>(AF096<br>373)<br>contai<br>ns<br>simila<br>rity<br>to<br>Solanu<br>m<br>lycope<br>rsicum<br>(tomat<br>o)<br>wound-<br>induce<br>d<br>protei<br>n<br>(GB:X5<br>9882)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164057 | ATU025<br>997 | ATL8C2<br>9659:2<br>500..3<br>218 | nap |  |  |  |  |  |  |  |  | g43357<br>26 | 99 | 157 | 1.3e-<br>09 | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164058 | ATU025        | ATL8C4                            | nap |  |  |  |  |  |  |  |  | g37765       | 99 | 245 | 2.6e-       | (AC005   |

|        |               |                                  |     |  |  |  |  |  |  |              |    |     |             |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|--|--|
|        | 998           | 5221:1<br>541..2<br>071          |     |  |  |  |  |  |  | 62           |    |     |             | 23   | 388)<br>Simila<br>r to<br>gb X80<br>472<br>STS15<br>gene<br>from<br>Solanu<br>m<br>tubero<br>sum.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164059 | ATU025<br>999 | ATL8C4<br>4442:1<br>203..9<br>76 | nap |  |  |  |  |  |  | g45393<br>55 | 99 | 132 | 1.4e-<br>06 | (AL049<br>525)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |  |
| 164060 | ATU026<br>000 | ATL8C4<br>4288:1<br>92..71<br>1  | nap |  |  |  |  |  |  | g45586<br>84 | 99 | 370 | 4.6e-<br>27 | (AC006<br>586)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164061 | ATU026<br>001 | ATL8C2<br>2726:7<br>38..93<br>8  | nap |  |  |  |  |  |  | g15321<br>68 | 99 | 249 | 2.3e-<br>13 | (U6381<br>5)<br>locali<br>zed  |  |



|        |               |                                    |     |  |  |  |  |  |  |                               |  |  |  |        |             |  |                             |   |
|--------|---------------|------------------------------------|-----|--|--|--|--|--|--|-------------------------------|--|--|--|--------|-------------|--|-----------------------------|---|
| 164063 | 002           | 9979:9<br>70..67<br>0              | nap |  |  |  |  |  |  | 78                            |  |  |  | 99     | 207         |  | 32                          | 667)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
|        | ATU026<br>003 | ATL8S5<br>610:46<br>6..176         | nap |  |  |  |  |  |  | g38606<br>68                  |  |  |  | 99     | 207         |  | 4.2e-<br>10                 | (AJ235<br>270)<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L28<br>(rpmB)<br>[Ricke<br>ttsia<br>prowaz<br>ekij] |
| 164064 | ATU026<br>004 | ATL8S6<br>94:355<br>..41           | nap |  |  |  |  |  |  | g17857<br>65                  |  |  |  | 99     | 161         |  | 6.3e-<br>09                 | (Y0850<br>2)<br>orf105<br>a<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164065 | ATU026<br>005 | ATL8C3<br>5107:7<br>779..1<br>0189 | nap |  |  |  |  |  |  | g45586<br>84,<br>g42636<br>55 |  |  |  | 99, 39 | 399,<br>868 |  | 8.9e-<br>19,<br>1.4e-<br>68 | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006         |









|        |               |                                   |     |  |  |  |  |  |  |              |    |  |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|--|-------------|--|
|        | 016           | 4776:5<br>39..34                  |     |  |  |  |  |  |  | 12           | 39 | 161)<br>putati<br>ve<br>leucīn<br>e<br>zipper<br>trancr<br>iption<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |             |  |
| 164077 | ATU026<br>017 | ATL8C3<br>2421:1<br>257..2<br>141 | nap |  |  |  |  |  |  | g34452<br>11 | 99 | 262  | 5.0e-<br>12 | (AC004<br>786)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164078 | ATU026<br>018 | ATL8S8<br>082:43<br>5..227        | nap |  |  |  |  |  |  | g22244       | 99 | 128  | 1.1e-<br>07 | (X0026<br>3)<br>uniden<br>tified<br>readin<br>g<br>frame<br>[Zea<br>mays]              |
| 164079 | ATU026<br>019 | ATL8C3<br>3808:6<br>60..92<br>6   | nap |  |  |  |  |  |  | g30435<br>36 | 99 | 353  | 8.8e-<br>32 | (AB000<br>708)<br>SAUR<br>[Rapha<br>nus<br>sativu<br>s]                                |
| 164080 | ATU026        | ATL8C1                            | nap |  |  |  |  |  |  | g49144       | 99 | 413  |             | (AL050   |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |  |    |              |    |     |             |   |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--|----|--------------|----|-----|-------------|---|---|
| 164081 | 020           | 0356:3<br>032..2<br>742         |     |  |  |  |  |  |  |  |  |  |  | 37 | g48369<br>51 | 99 | 124 | 9.2e-<br>12 | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      | 351)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 164082 | ATU026<br>021 | ATL8C1<br>7325:2<br>56..68<br>7 | nap |  |  |  |  |  |  |  |  |  |  |    | g43357<br>26 | 99 | 169 | 3.6e-<br>14 | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164083 | ATU026<br>023 | ATL8S1<br>9094:1<br>11..39<br>1 | nap |  |  |  |  |  |  |  |  |  |  |    | g45804<br>59 | 99 | 344 | 1.0e-<br>30 | (AC006<br>081)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      | (AC006<br>081)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |













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|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 164100 | ATU026<br>040 | ATL8C2<br>6939:5<br>72..10<br>78 | nap |  |  |  |  |  |  |  |  |  |  | g23471<br>89 | 99 | 603 | 1.4e-<br>39 | [AC002<br>338)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 164101 | ATU026<br>041 | ATL8C4<br>9957:1<br>66..63<br>0  | nap |  |  |  |  |  |  |  |  |  |  | g39803<br>85 | 99 | 610 | 5.1e-<br>52 | (AC004<br>561)<br>putati<br>ve 18<br>kDa<br>class<br>I heat<br>shock<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164102 | ATU026<br>042 | ATL8C2<br>1909:1<br>00..36<br>9  | nap |  |  |  |  |  |  |  |  |  |  | g43357<br>26 | 99 | 262 | 1.7e-<br>22 | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]              |





|        |               |                                   |     |  |  |  |  |  |  |  |              |    |     |  |  |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|--|--|-------------|--|
| 164110 | 049           | 1479:5<br>890..5<br>419           | nap |  |  |  |  |  |  |  | 35           |    |     |  |  | 56          | 224)<br>retro<br>ranspo<br>son<br>like<br>protei<br>n<br>(fragm<br>ent)<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        | ATU026<br>050 | ATL8C2<br>7153:5<br>14..91        | nap |  |  |  |  |  |  |  | g22136<br>30 | 99 | 309 |  |  | 2.7e-<br>32 | (AC000<br>103)<br>F21J9.<br>22<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164111 | ATU026<br>051 | ATL8C3<br>0934:6<br>33..11<br>69  | nap |  |  |  |  |  |  |  | g38057<br>59 | 99 | 478 |  |  | 1.4e-<br>35 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 164112 | ATU026<br>052 | ATL8C2<br>9931:3<br>879..3<br>393 | nap |  |  |  |  |  |  |  | g36872<br>43 | 99 | 294 |  |  | 1.6e-<br>12 | (AC005<br>169)<br>putati<br>ve<br>riboso<br>mal<br>protei<br>n<br>[Arabi                                     |







|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|---|
| 164122 | ATU026<br>062 | ATL8C2<br>9674:6<br>03..16<br>6 | nap |  |  |  |  |  |  |  |  |  | g33778<br>46 | 99 | 196 | 7.0e-<br>13 | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] | N IN<br>SMPA-<br>SMPB<br>INTERG<br>ENIC<br>REGION<br>(ORF10<br>1)<br>[Vibri<br>o<br>choler<br>ae] |
| 164123 | ATU026<br>063 | ATL8C4<br>9349:8<br>61..29<br>5 | nap |  |  |  |  |  |  |  |  |  | g24628<br>34 | 99 | 592 | 2.1e-<br>54 | (AF000<br>657)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       | (AF000<br>657)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 164124 | ATU026<br>064 | ATL8C4<br>3392:1<br>91..73<br>1 | nap |  |  |  |  |  |  |  |  |  | g46894<br>77 | 99 | 266 |             | (AC007<br>213)<br>pseuod<br>ogene<br>[Arabi<br>dopsis<br>thalia<br>na]                       | (AC007<br>213)<br>pseuod<br>ogene<br>[Arabi<br>dopsis<br>thalia<br>na]                            |



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| 164125 | ATU026<br>065 | ATL8C2<br>2411:4<br>61..86<br>5   | nap |  |  |  |  |  |  | 945586<br>75 | 99 | 225 | 9.1e-<br>21 | na]<br>(AC006<br>586)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 164126 | ATU026<br>066 | ATL8C5<br>:4419.<br>.5083         | nap |  |  |  |  |  |  | g40380<br>66 | 99 | 578 | 2.6e-<br>28 | (AC005<br>897)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164127 | ATU026<br>067 | ATL8C1<br>3106:4<br>501..4<br>827 | nap |  |  |  |  |  |  | g45586<br>83 | 99 | 272 | 2.6e-<br>12 | (AC006<br>586)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>Ttol<br>ORF1<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164128 | ATU026<br>068 | ATL8C1<br>9862:1<br>051..2<br>88  | nap |  |  |  |  |  |  | g40564<br>36 | 99 | 400 | 1.5e-<br>16 | (AC005<br>990)<br>EST<br>gb AA6   |



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|        | 072           | 2996:1<br>266..7<br>41            |     |  |  |  |  |  |  | 79           |    |     |             |  | 26 | 9)<br>FMRFam<br>ide<br>precur<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164133 | ATU026<br>073 | ATL8C1<br>3080:1<br>704..1<br>311 | nap |  |  |  |  |  |  | g48369<br>51 | 99 | 138 | 1.3e-<br>12 | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |    |   |
| 164134 | ATU026<br>074 | ATL8C4<br>797:11<br>10..70<br>9   | nap |  |  |  |  |  |  | g45103<br>58 | 99 | 245 | 4.2e-<br>23 | (AC006<br>921)<br>putati<br>ve<br>touch-<br>induce<br>d<br>calmod<br>ulin<br>[Arabi<br>dopsis<br>thalia<br>na] |    |   |
| 164135 | ATU026<br>075 | ATL8C1<br>4520:9<br>168..8<br>427 | nap |  |  |  |  |  |  | g33273<br>91 | 99 | 84  | 8.2e-<br>06 | (AC004<br>483)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi  |    |   |

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| 164136 | ATU026<br>076 | ATL8C4<br>1949:1<br>871..2<br>283 | nap |  |  |  |  |  |  |  |  |  | g18711<br>79 | 99 | 347 | 2.6e-<br>26 | (U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164137 | ATU026<br>077 | ATL8C1<br>6645:6<br>431..6<br>102 | nap |  |  |  |  |  |  |  |  |  | g36418<br>68 | 99 | 392 | 5.3e-<br>34 | (AJ011<br>012)<br>hypoth<br>etical<br>protei<br>n<br>[Cicer<br>arieti<br>num]                |
| 164138 | ATU026<br>078 | ATL8C1<br>4808:5<br>340..5<br>549 | nap |  |  |  |  |  |  |  |  |  | g10228<br>11 | 99 | 316 | 2.8e-<br>18 | (U3770<br>3) ORF<br>62<br>[Horde<br>um<br>vulgar<br>el]                                      |
| 164139 | ATU026<br>079 | ATL8C4<br>2456:1<br>286..1<br>950 | nap |  |  |  |  |  |  |  |  |  | g45586<br>84 | 99 | 303 | 1.5e-<br>18 | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |

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| 164140 | ATU026<br>080 | ATL8C1<br>980:26<br>53..17<br>21 | nap |  |  |  |  |  |  | g46783<br>26 | 99 | 381 | 6.4e-<br>26 | (AL049<br>658)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 164141 | ATU026<br>081 | ATL8C1<br>4133:1<br>14..64<br>1  | nap |  |  |  |  |  |  | g26424<br>30 | 99 | 782 | 1.3e-<br>63 | (AC002<br>391)<br>putati<br>ve AP2<br>domain<br>contai<br>ning<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 164142 | ATU026<br>082 | ATL8C2<br>4653:1<br>95..49<br>7  | nap |  |  |  |  |  |  | g14208<br>87 | 99 | 173 | 7.6e-<br>10 | (U3433<br>4)<br>non-<br>specif<br>ic<br>lipid<br>transf<br>er-<br>like<br>protei<br>n<br>[Phase<br>olus<br>vulgar<br>is] |
| 164143 | ATU026<br>083 | ATL8S2<br>3016:3                 | nap |  |  |  |  |  |  | g28515<br>49 | 99 | 254 | 5.2e-<br>23 | CSAA<br>PROTEI   |

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| 164144 | ATU026<br>084 | 42..16                            | nap |  |  |  |  |  |  |  |  |  | 99 | 76  | 0.0022      | (AC006<br>951)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  | N<br>[Bacil<br>lus<br>subtil<br>is]   |
| 164145 | ATU026<br>085 | ATL8C4<br>6760:6<br>687..7<br>264 | nap |  |  |  |  |  |  |  |  |  | 99 | 284 | 7.6e-<br>27 | (AC007<br>170)<br>putati<br>ve<br>fragme<br>nt of<br>cytosi<br>ne<br>DNA-<br>methyl<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na] | (AC007<br>170)<br>putati<br>ve<br>fragme<br>nt of<br>cytosi<br>ne<br>DNA-<br>methyl<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164146 | ATU026<br>086 | ATL8C1<br>4531:1<br>608..1<br>120 | nap |  |  |  |  |  |  |  |  |  | 99 | 389 | 2.2e-<br>35 | (AC002<br>391)<br>putati<br>ve AP2<br>domain<br>contai<br>ning<br>protei<br>n   | (AC002<br>391)<br>putati<br>ve AP2<br>domain<br>contai<br>ning<br>protei<br>n   |



|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |     |             |   |
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| 164151 | ATU026<br>091 | ATL8C3<br>2220:1<br>063..3<br>48 | nap |  |  |  |  |  |  |  |  | g33778<br>09 | 99 | 798 | 4.5e-<br>55 | dopsis<br>thalia<br>nal<br>(AF075<br>597)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s<br>(DNA-<br>bindin<br>g and<br>dimeri<br>zation<br>domain<br>)<br>(PFam:<br>transc<br>ript f<br>act.hm<br>m,<br>score:<br>15.85)<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 164152 | ATU026<br>092 | ATL8C1<br>9718:2<br>70..76<br>2  | nap |  |  |  |  |  |  |  |  | g37382<br>85 | 99 | 380 | 2.3e-<br>36 | (AC005<br>309)<br>unknow<br>n<br>protei   |



|        |               |                                     |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|-------------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 164153 | ATU026<br>093 | ATL8C1<br>0780:2<br>41..60<br>2     | nap |  |  |  |  |  |  |  |  |  | g28326<br>73 | 99 | 385 | 1.6e-<br>41 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL021<br>712)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164154 | ATU026<br>094 | ATL8C6<br>031:10<br>8..522          | nap |  |  |  |  |  |  |  |  |  | g16225       | 99 | 614 | 2.4e-<br>61 | (Z1202<br>3)<br>calmod<br>ulin<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164155 | ATU026<br>095 | ATL8C1<br>3033:9<br>39..72<br>9     | nap |  |  |  |  |  |  |  |  |  | g22244       | 99 | 77  | 0.0012      | (X0026<br>3)<br>uniden<br>tified<br>readin<br>g<br>frame<br>[Zea<br>mays]  |
| 164156 | ATU026<br>096 | ATL8C1<br>3016:1<br>2327..<br>13423 | nap |  |  |  |  |  |  |  |  |  | g11748<br>53 | 99 | 398 | 1.8e-<br>33 | UBIQU<br>TIN-<br>CONJUG<br>ATING<br>ENZYME<br>E2-18<br>KD<br>(UBIQU  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |                               |        |             |                             |  |   |
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| 164157 | ATU026<br>097 | ATL8C2<br>3323:4<br>56..14<br>5   | nap |  |  |  |  |  |  |  |  |  | g21941<br>18                  | 99     | 140         | 3.9e-<br>07                 | (AC002<br>062)<br>F20P5.<br>4 gene<br>product<br>[Arabi<br>dopsis<br>thalia<br>na]     | ITIN-<br>PROTEI<br>N<br>LIGASE<br>)<br>(UBIQU<br>ITIN<br>CARRIE<br>R<br>PROTEI<br>N)<br>(PM42)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164158 | ATU026<br>098 | ATL8C2<br>3352:5<br>442..6<br>002 | nap |  |  |  |  |  |  |  |  |  | g38057<br>59                  | 99     | 356         | 7.4e-<br>17                 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164159 | ATU026<br>099 | ATL8C2<br>2366:9<br>105..6<br>172 | nap |  |  |  |  |  |  |  |  |  | g47339<br>70,<br>g47739<br>18 | 99, 59 | 111,<br>856 | 6.2e-<br>09,<br>3.2e-<br>78 | (AC007<br>264)<br>hypoth<br>etical   | (AC007<br>264)<br>hypoth<br>etical  |

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| 164160 | ATU026<br>100 | ATL8S1<br>8793:6<br>6..469 | nap |  |  |  |  |  |  | g24626<br>40 | 99 | 363 | 6.5e-<br>31 | (Y1337<br>0)<br>revers<br>e<br>transc<br>riptase<br>[Oryza<br>sativa<br>]          | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164161 | ATU026<br>101 | ATL8C9<br>10:133<br>0..890 | nap |  |  |  |  |  |  | g36881<br>85 | 99 | 350 | 1.5e-<br>30 | (AL031<br>804)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164162 | ATU026<br>102 | ATL8C4<br>8995:8<br>07..29 | nap |  |  |  |  |  |  | g45103<br>61 | 99 | 198 | 1.1e-<br>20 | (AC007<br>017)<br>putati   | (AC007<br>017)<br>putati  |

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|        |               | 8                                 |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ve<br>DNA-<br>bindin<br>g<br>protei<br>n RAV2<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 164163 | ATU026<br>103 | ATL8C2<br>5246:1<br>183..1<br>401 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC003<br>673)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164164 | ATU026<br>104 | ATL8C3<br>109:55<br>7..170        | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC007<br>071) "<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164165 | ATU026<br>105 | ATL8C1<br>6707:1<br>630..7<br>92  | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AL022<br>224)<br>retrot<br>ranspo<br>son<br>like<br>protei<br>n<br>(fragm<br>ent)       |

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| 164166 | ATU026<br>106 | ATL8C9<br>817:24<br>11..18<br>18  | nap |  |  |  |  |  |  |  |  | 945586<br>84 | 99 |  | 368 | 1.0e-<br>18 | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 164167 | ATU026<br>107 | ATL8S9<br>973:10<br>2..341        | nap |  |  |  |  |  |  |  |  | 947411<br>88 | 99 |  | 102 | 1.0e-<br>08 | (AL049<br>746)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 164168 | ATU026<br>108 | ATL8C2<br>3421:1<br>138..1<br>570 | nap |  |  |  |  |  |  |  |  | 918711<br>79 | 99 |  | 135 | 4.7e-<br>07 | (U9043<br>9)<br>FMRFam<br>ide<br>precur<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164169 | ATU026<br>109 | ATL8C1<br>220:12<br>06..79        | nap |  |  |  |  |  |  |  |  | 932585<br>71 | 99 |  | 704 | 1.3e-<br>61 | (U8995<br>9)<br>Hypoth<br>etical<br>protei  |

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| 164170 | ATU026<br>110 | ATL8C1<br>403:1.<br>.1609         | nap |  |  |  |  |  |  |  | g44172<br>69,<br>g44172<br>82 | 99, 41 | 444,<br>289 | 1.4e-<br>30,<br>4.5e-<br>28 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>019)<br>hypothe-<br>tical<br>protei-<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC007<br>019)<br>putati-<br>ve<br>DNA-<br>bindin-<br>g<br>protei-<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164171 | ATU026<br>111 | ATL8C4<br>7869:2<br>601..3<br>080 | nap |  |  |  |  |  |  |  | g47340<br>12                  | 99     | 408         | 3.6e-<br>24                 | (AC007<br>112)<br>hypothe-<br>tical<br>protei-<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164172 | ATU026<br>112 | ATL8C4<br>6599:6                  | nap |  |  |  |  |  |  |  | g44540<br>38                  | 99     | 664         | 4.1e-<br>64                 | (AL035<br>394)  |







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| 164179 | ATU026<br>119 | ATL8C3<br>9183:3<br>124..3<br>915 | nap |  |  |  |  |  | g33778<br>09 | 99 | 361 | 2.8e-<br>33 | (AF075<br>597)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s<br>(DNA-<br>bindin<br>g and<br>dimeri<br>zation<br>domain<br>)<br>(PFam:<br>transc<br>ript_f<br>act.hm<br>m,<br>score:<br>15.85)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164180 | ATU026<br>120 | ATL8C6<br>235:50<br>5..92         | nap |  |  |  |  |  | g18711<br>79 | 99 | 246 | 1.8e-<br>12 | (U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi  |

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| 164181 | ATU026<br>121 | ATL8C1<br>4018:5<br>69..11<br>83 | nap |  |  |  |  |  |  |  |  | g44540<br>13 | 99 | 541 | 8.3e-<br>44 | (AL035<br>396)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164182 | ATU026<br>122 | ATL8C1<br>6932:7<br>69..10<br>79 | nap |  |  |  |  |  |  |  |  | g42189<br>89 | 99 | 349 | 5.6e-<br>34 | (AF098<br>631)<br>putati<br>ve<br>cell<br>wall-<br>plasma<br>membra<br>ne<br>discon<br>nectin<br>g CLCT<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164183 | ATU026<br>123 | ATL8C4<br>039:27<br>30..23<br>47 | nap |  |  |  |  |  |  |  |  | g45876<br>13 | 99 | 93  | 9.7e-<br>06 | (AC006<br>951)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |

[illegible]

|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |   |
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| 164184 | ATU026<br>124 | ATL8C3<br>712:32<br>7..833        | nap |  |  |  |  |  |  |  |  | g35488<br>11 | 99 | 714 | 1.8e-<br>55 | nal<br>(AC005<br>313)<br>kineto<br>chore<br>(SKP1p<br>) -like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164185 | ATU026<br>125 | ATL8C2<br>2287:2<br>941..2<br>364 | nap |  |  |  |  |  |  |  |  | g45876<br>13 | 99 | 75  | 0.0010      | (AC006<br>951)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 164186 | ATU026<br>126 | ATL8C4<br>8909:5<br>34..91        | nap |  |  |  |  |  |  |  |  | g23985<br>33 | 99 | 256 | 7.1e-<br>24 | (Y1372<br>5)<br>Transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 164187 | ATU026<br>127 | ATL8C3<br>7122:6<br>43..89<br>1   | nap |  |  |  |  |  |  |  |  | g21298<br>04 | 99 | 376 |             | pollen<br>allerg<br>en Bra<br>r II<br>(clone<br>921) -<br>turnip  |

|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |  |     |             |  |
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| 164188 | ATU026<br>128 | ATL8S2<br>6800:4<br>79..7        | nap |  |  |  |  |  |  |  |  | g45586<br>84 | 99 |  | 367 |             | [Brass<br>ica<br>rapa]<br>(AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164189 | ATU026<br>129 | ATL8C1<br>9462:3<br>3..644       | nap |  |  |  |  |  |  |  |  | g48862<br>86 | 99 |  | 660 | 5.7e-<br>54 | (AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 164190 | ATU026<br>130 | ATL8C3<br>2179:9<br>52..33<br>4  | nap |  |  |  |  |  |  |  |  | g47261<br>10 | 99 |  | 137 | 6.7e-<br>05 | (AC006<br>436)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 164191 | ATU026<br>131 | ATL8C4<br>3916:1<br>120..3<br>29 | nap |  |  |  |  |  |  |  |  | g13277<br>0  | 99 |  | 93  |             | CHLORO<br>PLAST<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L20   |



|        |               |                                   |     |  |  |  |  |  |  |                              |        |             |                      |  |
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| 164195 | ATU026<br>135 | ATL8C1<br>3962:2<br>384..4<br>073 | nap |  |  |  |  |  |  | g47339<br>87                 | 99     | 143         | 1.1e-<br>08          | (AC007<br>209)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 164196 | ATU026<br>136 | ATL8C1<br>1510:3<br>34..74<br>1   | nap |  |  |  |  |  |  | g28326<br>26                 | 99     | 227         | 2.5e-<br>21          | (AL021<br>711)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 164197 | ATU026<br>137 | ATL8C2<br>4354:1<br>525..1<br>103 | nap |  |  |  |  |  |  | g18711<br>79                 | 99     | 285         | 3.2e-<br>20          | (U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164198 | ATU026<br>138 | ATL8C5<br>13:562<br>..1234        | nap |  |  |  |  |  |  | g54442<br>1,<br>g34027<br>11 | 99, 47 | 153,<br>170 | 0.56,<br>3.6e-<br>13 | GLYCIN<br>E-RICH<br>RNA-<br>BINDIN<br>G<br>PROTEI<br>N 1<br>[Sorgh<br>um]                    |

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| 164199 | ATU026<br>139 | ATL8C3<br>1455:1<br>86..60<br>5    | nap |  |  |  |  |  |  |  |  |  | g16174<br>71 | 99 | 383 | 2.3e-<br>17 | (X9760<br>4)<br>ORFI<br>[Zea<br>diplop<br>erennis]                                     | bicol<br>orl;<br>(AC004<br>261)<br>putati<br>ve<br>RNA-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164200 | ATU026<br>140 | ATL8C4<br>3908:5<br>52..18<br>0    | nap |  |  |  |  |  |  |  |  |  | g45824<br>62 | 99 | 147 |             | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164201 | ATU026<br>141 | ATL8C1<br>3940:1<br>0162..<br>8846 | nap |  |  |  |  |  |  |  |  |  | g17857<br>37 | 99 | 118 | 2.5e-<br>07 | (Y0850<br>2)<br>orf109<br>b<br>[Arabi<br>dopsis<br>thalia<br>na]                       |  |

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| 164202 | ATU026<br>142 | ATL8C2<br>77:321<br>..1560      | nap |  |  |  |  |  |  | g47739<br>02 | 99 | 405 | 7.6e-<br>19 | (AF074<br>021)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 164203 | ATU026<br>143 | ATL8S1<br>3454:2<br>0..457      | nap |  |  |  |  |  |  | g24963<br>34 | 99 | 167 | 5.3e-<br>14 | HYPOTH<br>ETICAL<br>PROTEI<br>N<br>MG221<br>HOMOLO<br>G<br>[Mycop<br>lasma<br>pneumo<br>niae] |
| 164204 | ATU026<br>144 | ATL8S1<br>9895:9<br>..311       | nap |  |  |  |  |  |  | g42204<br>78 | 99 | 237 | 5.3e-<br>21 | (AC006<br>069)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 164205 | ATU026<br>145 | ATL8C1<br>8072:4<br>60..15<br>2 | nap |  |  |  |  |  |  | g37382<br>99 | 99 | 460 | 7.5e-<br>43 | (AC005<br>309)<br>putati<br>ve<br>glutar<br>edoxin<br>[Arabi<br>dopsis<br>thalia]             |



|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |  |
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| 164206 | ATU026<br>146 | ATL8C1<br>9376:6<br>42..15<br>1   | nap |  |  |  |  |  |  |  |  | g54858<br>9  | 99 | 414 | 4.6e-<br>38 | na]<br>PATHOG<br>ENESIS<br>-<br>RELATE<br>D<br>PROTEI<br>N<br>PRB1-3<br>PRECUR<br>SOR<br>(PR-<br>1B)<br>(HV-8)<br>[Horde<br>um<br>vulgar<br>e] |
| 164207 | ATU026<br>147 | ATL8C1<br>5470:1<br>478..1<br>050 | nap |  |  |  |  |  |  |  |  | g30969<br>44 | 99 | 307 | 6.8e-<br>26 | (AL023<br>094)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164208 | ATU026<br>148 | ATL8S1<br>9951:5<br>79..1         | nap |  |  |  |  |  |  |  |  | g33226<br>50 | 99 | 124 | 2.7e-<br>08 | (AE001<br>216)<br>genera<br>l<br>stress<br>protei<br>n<br>(ctc)<br>[Trepo<br>nema<br>pallid<br>um]   |

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| 164209 | ATU026<br>149 | ATL8C7<br>73:105<br>..860        | nap |  |  |  |  |  |  | g34200<br>60 | 99 | 607 | 1.4e-<br>22 | (AC004<br>680)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 164210 | ATU026<br>150 | ATL8S1<br>8131:3<br>89..9        | nap |  |  |  |  |  |  | g24941<br>17 | 99 | 648 | 4.7e-<br>50 | (AC002<br>376)<br>Contai<br>ns<br>simila<br>rity<br>to<br>Papave<br>r S3<br>self-<br>incomp<br>atibil<br>ity<br>protei<br>n<br>(gb X8<br>7100).<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164211 | ATU026<br>151 | ATL8C4<br>3888:1<br>261..8<br>04 | nap |  |  |  |  |  |  | g30803<br>57 | 99 | 506 |             | (AL022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia   |

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| 164212 | ATU026<br>152 | ATL8C2<br>4675:5<br>269..4<br>713 | nap |  |  |  |  |  |  |  | g45586<br>84 | 99 | 482 | 4.8e-<br>21 | na]<br>(AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 164213 | ATU026<br>153 | ATL8C8<br>905:35<br>41..40<br>11  | nap |  |  |  |  |  |  |  | g31232<br>95 | 99 | 150 | 6.5e-<br>09 | CALMOD<br>ULIN-<br>RELATE<br>D<br>PROTEI<br>N 2,<br>TOUCH-<br>INDUCE<br>D<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164214 | ATU026<br>154 | ATL8C9<br>01:102<br>4..161<br>1   | nap |  |  |  |  |  |  |  | g34452<br>11 | 99 | 265 | 2.0e-<br>15 | (AC004<br>786)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 164215 | ATU026<br>155 | ATL8S7<br>502:47<br>0..35         | nap |  |  |  |  |  |  |  | g26224<br>45 | 99 | 253 | 1.2e-<br>20 | (AE000<br>897)<br>peptid<br>yl-<br>prolyl<br>cis-  |

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| 164216 | ATU026<br>156 | ATL8C4<br>6642:3<br>60..93<br>8   | nap |  |  |  |  |  |  |  |  |  | g26424<br>30 | 99 | 398 | 3.4e-<br>45 | (AC002<br>391)<br>putati<br>ve AP2<br>domain<br>contai<br>ning<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | trans<br>isomer<br>ase B<br>[Metha<br>nobact<br>erium<br>thermo<br>autotr<br>ophicu<br>m] |
| 164217 | ATU026<br>157 | ATL8C4<br>3860:4<br>11..40        | nap |  |  |  |  |  |  |  |  |  | g48836<br>19 | 99 | 437 |             | (AC006<br>922)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             | (AC006<br>922)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 164218 | ATU026<br>158 | ATL8C1<br>0665:1<br>233..1<br>484 | nap |  |  |  |  |  |  |  |  |  | g31766<br>88 | 99 | 212 |             | (AC003<br>671)<br>F1707.<br>20<br>[Arabi<br>dopsis<br>thalia<br>na]  | (AC003<br>671)<br>F1707.<br>20<br>[Arabi<br>dopsis<br>thalia<br>na]                       |





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| 164228 | ATU026<br>168 | ATL8C4<br>3852:2<br>373..1<br>887 | nap |  |  |  |  |  |  | g14835<br>76 | 99 | 168 |             |  | putida<br>]; ATP<br>SYNTHA<br>SE A<br>CHAIN<br>(PROTE<br>IN 6)<br>[Pseud<br>omonas<br>putida<br>]                        |
| 164229 | ATU026<br>169 | ATL8S1<br>3139:4<br>17..76        | nap |  |  |  |  |  |  | g17086<br>28 | 99 | 196 | 1.6e-<br>07 |  | DIACYL<br>GLYCER<br>OL<br>KINASE<br>(DAGK)<br>(DIGLY<br>CERIDE<br>KINASE<br>)<br>(DGK)<br>[Bacil<br>lus<br>subtil<br>is] |
| 164230 | ATU026<br>170 | ATL8S9<br>641:34<br>2..10         | nap |  |  |  |  |  |  | g29953<br>19 | 99 | 218 | 6.5e-<br>16 |  | (AL022<br>268)<br>transc<br>riptio<br>nal<br>regula  |

[illegible]

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |    |     |  |  |
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|        |               |                                   |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |    |     | tor<br>[Strep<br>tomyce<br>s<br>coelic<br>olor]  |  |
| 164231 | ATU026<br>171 | ATL8S2<br>417:73<br>..403         | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | g30250<br>72 | 99 | 102 | 1.2e-<br>06  | HYPOTH<br>ETICAL<br>12.4<br>KD<br>PROTEI<br>N IN<br>MINC-<br>SHEA<br>INTERG<br>ENIC<br>REGION<br>[Esche<br>richia<br>coli] |
| 164232 | ATU026<br>172 | ATL8C1<br>3692:1<br>815..1<br>414 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | g48877<br>43 | 99 | 604 | 4.3e-<br>58  | (AC006<br>533)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 164233 | ATU026<br>173 | ATL8C1<br>0185:3<br>417..2<br>896 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | g44552<br>19 | 99 | 192 | (AL035<br>440)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |



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| 164234 | ATU026<br>174 | ATL8C2<br>3945:1<br>185..1<br>487 | nap |  |  |  |  |  |  | g38941<br>85 | 99 | 137 | 2.9e-<br>05 | (AC005<br>662)<br>unknown<br>protein<br>[Arabidopsis<br>thaliana]   |
| 164235 | ATU026<br>175 | ATL8C4<br>8705:9<br>87..43<br>3   | nap |  |  |  |  |  |  | g11731<br>84 | 99 | 145 | 1.5e-<br>12 | CHLORO<br>PLAST<br>30S<br>RIBOSOMAL<br>PROTEIN<br>N S12<br>[Cuscuta<br>europaea]  |
| 164236 | ATU026<br>176 | ATL8C8<br>96:163<br>1..700        | nap |  |  |  |  |  |  | g33778<br>09 | 99 | 489 | 7.8e-<br>33 | (AF075<br>597)<br>contains<br>similarity<br>to SRF-type<br>transcription<br>factor<br>(DNA-binding<br>and dimerization) |

|        |               |                                   |       |  |  |  |  |  |  |              |    |     |             |  |
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| 164237 | ATU026<br>177 | ATL8C4<br>7084:5<br>176..5<br>736 | nap   |  |  |  |  |  |  | g48039<br>18 | 99 | 610 | 4.1e-<br>32 | (AC006<br>219)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 164238 | ATU026<br>178 | ATL8S2<br>6114:3<br>41..14        | nap * |  |  |  |  |  |  | g24945<br>47 | 99 | 116 | 5.5e-<br>08 | FLAGEL<br>LAR<br>HOOK-<br>BASAL<br>BODY<br>COMPLE<br>X<br>PROTEI<br>N FLIE<br>[Pseud<br>omonas<br>aerugi<br>nos] |
| 164239 | ATU026<br>179 | ATL8C7<br>82:953<br>..744         | nap   |  |  |  |  |  |  | g22244       | 99 | 97  | 0.0006<br>1 | (X0026<br>3)<br>uniden<br>tified   |





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| 164247 | ATU026<br>187 | ATL8C1<br>4759:3<br>553..3<br>801 | nap |  |  |  |  |  |  |  | 913131<br>0  | 99 | 112 | 3.5e-<br>05 | na]<br>CYTOCH<br>ROME<br>B559<br>ALPHA<br>CHAIN<br>[Nicot<br>iana<br>tabacu<br>m]  |
| 164248 | ATU026<br>188 | ATL8C1<br>9129:1<br>047..7<br>65  | nap |  |  |  |  |  |  |  | 946783<br>51 | 99 | 254 | 1.1e-<br>22 | (AL049<br>659)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164249 | ATU026<br>189 | ATL8C7<br>933:38<br>0..753        | nap |  |  |  |  |  |  |  | 933554<br>83 | 99 | 375 | 8.5e-<br>21 | (AC004<br>218)<br>gibber<br>ellin-<br>regula<br>ted<br>protei<br>n<br>(GASA5<br>) -like<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164250 | ATU026<br>190 | ATL8C1<br>4764:2<br>409..1<br>094 | nap |  |  |  |  |  |  |  | 918711<br>79 | 99 | 277 | 3.5e-<br>14 | (U9043<br>9)<br>FMRFam<br>ide<br>precur<br>sor   |

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| 164251 | ATU026<br>191 | ATL8C2<br>2098:5<br>98...24<br>8 | nap |  |  |  |  |  |  |  |  | g29807<br>78 | 99 | 584 | 1.6e-<br>51 | isolog<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL022<br>198)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164252 | ATU026<br>192 | ATL8S2<br>0779:4<br>99...88      | nap |  |  |  |  |  |  |  |  | g48369<br>51 | 99 | 198 | 4.8e-<br>20 | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164253 | ATU026<br>193 | ATL8C1<br>7879:1<br>096..7<br>99 | nap |  |  |  |  |  |  |  |  | g36680<br>78 | 99 | 308 |             | (AC004<br>667)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164254 | ATU026<br>194 | ATL8S1<br>2858:1<br>07..41<br>2  | nap |  |  |  |  |  |  |  |  | g45875<br>76 | 99 | 418 | 2.2e-<br>38 | (AC006<br>550)<br>Strong<br>simila<br>rity  |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|---|
| 164255 | ATU026<br>195 | ATL8C3<br>0432:1<br>189..2<br>062 | nap |  |  |  |  |  |  |  |  |  | g23427<br>32 | 99 | 120 | 0.66        | (AC002<br>341)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | to<br>gb Z49<br>699<br>glutar<br>edoxin<br>from<br>Ricin<br>s<br>commun<br>is.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164256 | ATU026<br>196 | ATL8S1<br>7096:3<br>83..15<br>9   | nap |  |  |  |  |  |  |  |  |  | g76971<br>7  | 99 | 194 | 9.4e-<br>10 | (D3205<br>2)<br>ORF76B<br>[Oryza<br>sativa<br>]  | (D3205<br>2)<br>ORF76B<br>[Oryza<br>sativa<br>]   |
| 164257 | ATU026<br>197 | ATL8C3<br>8411:2<br>163..2<br>796 | nap |  |  |  |  |  |  |  |  |  | g42630<br>47 | 99 | 79  | 0.0049      | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                              |





|        |               |                                 |     |  |  |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164261 | ATU026<br>201 | ATL8C4<br>1736:4<br>97..25<br>5 | nap |  |  |  |  |  |  |  |  | g81099       | 99 | 90  | 8.2e-<br>06 | hypothetical protein 4 (5S rRNA 3' region) - Desulfurococcus mobilis (fragment) [Desulfurococcus mobilis] |
| 164262 | ATU026<br>202 | ATL8C4<br>6704:4<br>01..79<br>7 | nap |  |  |  |  |  |  |  |  | g45824<br>66 | 99 | 131 | 6.5e-<br>12 | (AC007071) unknown protein [Arabis dopsis thaliana]   |
| 164263 | ATU026<br>203 | ATL8C9<br>871:58<br>7..89       | nap |  |  |  |  |  |  |  |  | g46626<br>50 | 99 | 163 | 7.6e-<br>16 | (AC006419) hypothetical   |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 164264 | ATU026<br>204 | ATL8C3<br>4356:1<br>521..1<br>040 | nap |  |  |  |  |  |  | g44552<br>82 | 99 | 111 | 0.97        | (AL035<br>527)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164265 | ATU026<br>205 | ATL8C2<br>4815:3<br>33..60<br>2   | nap |  |  |  |  |  |  | g30435<br>36 | 99 | 326 | 4.4e-<br>31 | (AB000<br>708)<br>SAUR<br>[Rapha<br>nus<br>sativu<br>s]  |
| 164266 | ATU026<br>206 | ATL8C3<br>1389:2<br>49..46<br>7   | nap |  |  |  |  |  |  | g18256<br>45 | 99 | 305 | 1.9e-<br>26 | (U8817<br>3)<br>weak<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>ubiqui<br>tin-<br>like<br>protei<br>n 8<br>[Caeno |





|        |               |                                     |     |  |  |  |  |  |  |  |  |    |              |     |             |  |  |
|--------|---------------|-------------------------------------|-----|--|--|--|--|--|--|--|--|----|--------------|-----|-------------|--|--|
| 164275 | ATU026<br>215 | ATL8S3<br>0111:1<br>2..384          | nap |  |  |  |  |  |  |  |  | 99 | g11728<br>47 | 156 | 6.7e-<br>11 | RIBOSO<br>ME-<br>BINDIN<br>G<br>FACTOR<br>A<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd] | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164276 | ATU026<br>216 | ATL8C1<br>4776:1<br>1174..<br>12907 | nap |  |  |  |  |  |  |  |  | 99 | g47339<br>87 | 152 | 2.0e-<br>07 | (AC007<br>209)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |  |
| 164277 | ATU026<br>217 | ATL8C2<br>4966:6<br>02..16<br>5     | nap |  |  |  |  |  |  |  |  | 99 | g28326<br>47 | 181 | 1.8e-<br>21 | (AL021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |  |
| 164278 | ATU026<br>218 | ATL8C3<br>2027:1<br>088..1          | nap |  |  |  |  |  |  |  |  | 99 | g21467<br>40 | 463 | 1.7e-<br>33 | inner<br>mitoch<br>ondria  |  |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164279 | ATU026<br>219 | ATL8C3<br>5411:1<br>932..1<br>462 | nap |  |  |  |  |  |  |  |  |  | g28275<br>39 | 99 | 565 | 2.6e-<br>51 | (AL021<br>635)<br>predic<br>ted<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164280 | ATU026<br>220 | ATL8C4<br>3188:3<br>41..7         | nap |  |  |  |  |  |  |  |  |  | g11748<br>70 | 99 | 117 | 3.6e-<br>09 | UBIQUI<br>NOL-<br>CYTOCH<br>ROME C<br>REDUCT<br>ASE<br>COMPLE<br>X 8.0<br>KD<br>PROTEI<br>N<br>[Solan<br>um<br>tubero<br>sum] |
| 164281 | ATU026<br>221 | ATL8C4<br>7386:1                  | nap |  |  |  |  |  |  |  |  |  | g32016<br>20 | 99 | 217 | 6.5e-<br>24 | (AC004<br>669)  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|--|
| 164282 | ATU026<br>222 | ATL8C1<br>0908:2<br>970..2<br>489 | nap |  |  |  |  |  |  |  |  |  | g29824<br>35 | 99 | 291 | 4.4e-<br>30 | (AL022<br>224)<br>retrot<br>ranspo<br>son<br>like<br>protei<br>n<br>(fragm<br>ent)<br>[Arabi<br>dopsis<br>thalia<br>nal] | unknown<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                       |
| 164283 | ATU026<br>223 | ATL8S2<br>462:25<br>0..540        | nap |  |  |  |  |  |  |  |  |  | g54356<br>5  | 99 | 215 | 2.9e-<br>18 | hypoth<br>etical<br>10.0K<br>protei<br>n -<br>Zinnia<br>elegan<br>s<br>[Zinni<br>a<br>elegan<br>s]                       | hypoth<br>etical<br>10.0K<br>protei<br>n -<br>Zinnia<br>elegan<br>s<br>[Zinni<br>a<br>elegan<br>s] |
| 164284 | ATU026<br>224 | ATL8C3<br>0580:8<br>30..62<br>4   | nap |  |  |  |  |  |  |  |  |  | g15321<br>67 | 99 | 135 | 0.0008<br>5 | (U6381<br>5)<br>locali<br>zed<br>accord<br>ing to  | (U6381<br>5)<br>locali<br>zed<br>accord<br>ing to  |

[illegible][illegible]



|        |               |                                  |     |  |  |  |  |  |  |  |              |     |             |   |
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| 164286 | ATU026<br>226 | ATL8C3<br>0601:1<br>61..67<br>6  | nap |  |  |  |  |  |  |  | 99           | 308 | 4.0e-<br>31 | ns<br>similarity<br>to<br>Papaver<br>S3<br>self-<br>incomp<br>atibility<br>protein<br>(gb X8<br>7100).<br>[Arabi<br>dopsis<br>thaliana<br>na] |
| 164287 | ATU026<br>227 | ATL8C1<br>1438:1<br>214..6<br>58 | nap |  |  |  |  |  |  |  | 99           | 485 | 2.1e-<br>22 | (AL050<br>300)<br>putative<br>protein<br>[Arabi<br>dopsis<br>thaliana<br>na]  |
| 164288 | ATU026<br>228 | ATL8C2<br>8135:3                 | nap |  |  |  |  |  |  |  | 99           | 191 | 9.5e-<br>13 | (AC006<br>586)<br>hypothetical<br>protein<br>[Arabi<br>dopsis<br>thaliana<br>na]  |
|        |               |                                  |     |  |  |  |  |  |  |  | 933197<br>74 |     |             | (Y1622<br>8)  |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|----|------|-------------|--|---|
| 164289 | ATU026<br>229 | 80..59<br>5                       | nap |  |  |  |  |  |  |  |  |  | 99 | 230  | 1.9e-<br>14 | (AC004<br>512)<br>T8F5.2<br>0<br>[Arabi<br>dopsis<br>thalia<br>nal]  | TOM7<br>protei<br>n<br>[Solan<br>um<br>tubero<br>sum] |
| 164290 | ATU026<br>230 | ATL8C3<br>8074:5<br>800..6<br>156 | nap |  |  |  |  |  |  |  |  |  | 99 | 5480 | 0.0         | (AC006<br>528)<br>putati<br>ve pol<br>polypr<br>oteins<br>with a<br>Zn-<br>finger<br>CCHC<br>type<br>domain<br>(prosi<br>te:QDO<br>C50158<br>) and<br>a DDE<br>integr<br>ase<br>signat<br>ure<br>motif<br>[Arabi<br>dopsis<br>thalia |   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 164291 | ATU026<br>231 | ATL8C3<br>0628:1<br>079..1       | nap |  |  |  | ATL8C3<br>0628:1<br>079..5<br>0  | 0.97 | g26186<br>94 | 98 | 1376 | 1.4e-<br>129 | {AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164292 | ATU026<br>232 | ATL8C4<br>0093:3<br>65..22<br>8  | nap |  |  |  | ATL8C4<br>0093:3<br>65..25<br>2  | 0.96 | g28946<br>09 | 98 | 187  | 1.9e-<br>14  | {AL021<br>889)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 164293 | ATU026<br>233 | ATL8C3<br>0374:2<br>754..8<br>07 | nap |  |  |  | ATL8C3<br>0374:2<br>425..8<br>25 | 0.96 | g23179<br>08 | 98 | 549  | 2.6e-<br>58  | {U8995<br>9)<br>Unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 164294 | ATU026<br>234 | ATL8C4<br>7086:8<br>47..1        | nap |  |  |  | ATL8C4<br>7086:8<br>47..16<br>5  | 0.94 | g40380<br>66 | 98 | 463  | 2.1e-<br>26  | {AC005<br>897)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi   |

|        |               |                                  |     |  |  |  |  |  |      |              |    |      |              |   |
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| 164295 | ATU026<br>235 | ATL8C4<br>7838:3<br>57..10<br>94 | nap |  |  |  |  |  | 0.92 | g45843<br>53 | 98 | 90   | 0.0006<br>6  | dopsis<br>thalia<br>nal<br>(AC006<br>420)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 164296 | ATU026<br>236 | ATL8C3<br>0525:3<br>537..1       | nap |  |  |  |  |  | 0.86 | g21911<br>95 | 98 | 2784 | 3.1e-<br>230 | (AF007<br>271)<br>contai<br>ns<br>simila<br>rity<br>to T.<br>cruzi<br>3' end<br>fragme<br>nt<br>(PID:g<br>161956<br>)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164297 | ATU026<br>237 | ATL8S1<br>5832:6<br>4..204       | nap |  |  |  |  |  | 0.84 | g29807<br>63 | 98 | 206  | 1.4e-<br>16  | (AL022<br>198)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |

|        |               |                                  |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 164298 | ATU026<br>238 | ATL8C3<br>3308:1<br>93..66<br>4  | nap |  |  |  | ATL8C3<br>3308:1<br>93..66<br>4   | 0.81 | g39158<br>23 | 98 | 147  | 7.4e-<br>07  | na]<br>[Segme<br>nt 1<br>of 2]<br>60S<br>RIBOSO<br>MAL<br>PROTEI<br>N L5<br>[]   |
| 164299 | ATU026<br>239 | ATL8C4<br>5701:2<br>65..16<br>28 | nap |  |  |  | ATL8C4<br>5701:1<br>564..1<br>281 | 0.81 | g42621<br>60 | 98 | 316  | 2.1e-<br>34  | (AC005<br>275)<br>putati<br>ve<br>chloro<br>plast<br>protei<br>n<br>import<br>compon<br>ent<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164300 | ATU026<br>240 | ATL8C1<br>1030:1<br>24..16<br>69 | nap |  |  |  | ATL8C1<br>1030:1<br>73..15<br>62  | 0.80 | g45875<br>26 | 98 | 1282 | 7.0e-<br>119 | (AC007<br>060)<br>Strong<br>simila<br>rity<br>to<br>F19I3.<br>2 []   |
| 164301 | ATU026<br>241 | ATL8C3<br>1161:5<br>03..66<br>5  | nap |  |  |  | ATL8C3<br>1161:5<br>09..58<br>4   | 0.79 | g25058<br>80 | 98 | 115  | 6.1e-<br>09  | (Y1277<br>6)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi  |

|        |               |                                 |     |  |  |  |  |                                   |      |              |    |      |              |   |
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| 164302 | ATU026<br>242 | ATL8C4<br>6624:1<br>..3497      | nap |  |  |  |  | ATL8C4<br>6624:1<br>147..3<br>497 | 0.79 | g39246<br>09 | 98 | 2375 | 0.0          | dopsis.<br>thalia<br>na]<br>(AF069<br>442)<br>putati<br>ve<br>polypr<br>oteins<br>of LTR<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164303 | ATU026<br>243 | ATL8C1<br>9987:1<br>11..61<br>7 | nap |  |  |  |  | ATL8C1<br>9987:4<br>46..61<br>7   | 0.79 | g88608<br>2  | 98 | 172  | 0.16         | (U2718<br>2) RNA<br>polyme<br>rase<br>II<br>larges<br>t<br>subuni<br>t<br>[Sacch<br>aromyc<br>es<br>cerevi<br>siae]                             |
| 164304 | ATU026<br>244 | ATL8C4<br>0360:1<br>..1857      | nap |  |  |  |  | ATL8C4<br>0360:2<br>44..15<br>42  | 0.77 | g42637<br>66 | 98 | 2291 | 1.7e-<br>221 | (AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |

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| 164305 | ATU026<br>245 | ATL8C2<br>2483:1<br>602..2<br>29 | nap |  |  |  | ATL8C2<br>2483:1<br>339..2<br>44 | 0.76 | g39280<br>90 | 98 | 1064 | 7.8e-<br>69 | (AC005<br>770)<br>putati<br>ve<br>MTN3<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 164306 | ATU026<br>246 | ATL8C5<br>961:26<br>20..1        | nap |  |  |  | ATL8C5<br>961:26<br>20..37       | 0.75 | g46801<br>80 | 98 | 2086 |             | (AF111<br>709)<br>polyp<br>rotein<br>[Oryza<br>sativa<br>subsp.<br>indica<br>]                           |
| 164307 | ATU026<br>247 | ATL8C3<br>1868:3<br>741..9<br>88 | nap |  |  |  | ATL8C3<br>1868:3<br>741..9<br>88 | 0.75 | g48357<br>77 | 98 | 268  | 0.54        | (AC007<br>296)<br>F25C20<br>.5<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 164308 | ATU026<br>248 | ATL8C2<br>036:27<br>12..1        | nap |  |  |  | ATL8C2<br>036:25<br>56..48<br>2  | 0.74 | g48951<br>68 | 98 | 527  | 9.2e-<br>38 | (AC007<br>662)<br>putati<br>ve<br>repl<br>ication<br>protei<br>n Al<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 164309 | ATU026<br>249 | ATL8C2<br>3159:1<br>..1192       | nap |  |  |  | ATL8C2<br>3159:3<br>76..11<br>92 | 0.73 | g48368<br>95 | 98 | 528  | 9.1e-<br>61  | (AC007<br>369)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 164310 | ATU026<br>250 | ATL8C4<br>971:82<br>7..331<br>5  | nap |  |  |  | ATL8C4<br>971:83<br>0..325<br>0  | 0.72 | g44690<br>24 | 98 | 2764 | 1.8e-<br>289 | (AL035<br>602)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 164311 | ATU026<br>251 | ATL8C4<br>502:42<br>20..22<br>48 | nap |  |  |  | ATL8C4<br>502:42<br>12..22<br>48 | 0.68 | g40637<br>41 | 98 | 1289 | 1.4e-<br>127 | (AC005<br>851)<br>putati<br>ve<br>Na/H<br>antipo<br>rter<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164312 | ATU026<br>252 | ATL8S2<br>5048:1<br>70..59<br>6  | nap |  |  |  | ATL8S2<br>5048:1<br>70..37<br>1  | 0.67 | g32198<br>86 | 98 | 137  | 5.6e-<br>08  | HYPOTH<br>ETICAL<br>TRANSC<br>RIPTIO<br>NAL<br>REGULA<br>TOR<br>MJ0272<br>[ ]                 |



|        |               |                                   |     |  |  |  |  |               |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|---------------|--------------|----|------|--------------|---|
| 164313 | ATU026<br>253 | ATL8C1<br>4097:1<br>41..14<br>99  | nap |  |  |  | ATL8C1<br>4097:1<br>69..14<br>99                                       | 0.66          | g45843<br>53 | 98 | 99   | 0.0001<br>1  | (AC006<br>420)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 164314 | ATU026<br>254 | ATL8C9<br>272:40<br>07..10<br>292 | nap |  |  |  | ATL8C9<br>272:40<br>07..82<br>61,<br>ATL8C9<br>272:10<br>091..8<br>684 | 0.64,<br>0.75 | g42638<br>31 | 98 | 5198 |              | (AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164315 | ATU026<br>255 | ATL8C4<br>5545:1<br>775..1<br>53  | nap |  |  |  | ATL8C4<br>5545:1<br>695..1<br>53                                       | 0.63          | g14653<br>68 | 98 | 945  | 3.4e-<br>117 | (X9954<br>8)<br>bHLH<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164316 | ATU026<br>256 | ATL8C4<br>7547:1<br>487..1        | nap |  |  |  | ATL8C4<br>7547:1<br>453..1<br>29                                       | 0.62          | g21604<br>54 | 98 | 915  | 2.8e-<br>96  | (L3712<br>6) GA4<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164317 | ATU026<br>257 | ATL8C3<br>7441:3                  | nap |  |  |  | ATL8C3<br>7441:3   | 0.60          | g37864<br>96 | 98 | 90   |              | (AF098<br>993)  |

|        |               |                            |     |  |  |  |  |                                 |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|----------------------------------|------|--------------|----|------|--------------|---|
| 164318 | ATU026<br>258 | ATL8C1<br>6432:1<br>..2041 | nap |  |  |  |  | 945..1<br>843                   | ATL8C1<br>6432:2<br>31..20<br>41 | 0.60 | g40637<br>41 | 98 | 1204 | 9.9e-<br>124 | No<br>defini<br>tion<br>line<br>found<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s]<br>(AC005<br>851)<br>putati<br>ve<br>Na/H<br>antipo<br>rter<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164319 | ATU026<br>259 | ATL8C1<br>757:14<br>27..1  | nap |  |  |  |  | ATL8C1<br>757:92<br>3..394      | g49143<br>58                     | 0.60 | g49143<br>58 | 98 | 370  | 3.2e-<br>41  | (AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164320 | ATU026<br>260 | ATL8C4<br>3448:1<br>..761  | nap |  |  |  |  | ATL8C4<br>3448:5<br>59..75<br>3 | g30803<br>58                     | 0.60 | g30803<br>58 | 98 | 790  |              | (AL022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |

|        |               |                                 |     |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 164321 | ATU026<br>261 | ATL8S1<br>5684:2<br>61..92      | nap |  |  |  | ATL8S1<br>5684:2<br>61..92      | 0.58 | g21044<br>12 | 98 | 206 | 3.3e-<br>10 | na]<br>(Z9539<br>0)<br>hypoth<br>etical<br>protei<br>n<br>Rv3489<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 164322 | ATU026<br>262 | ATL8C4<br>8016:7<br>75..47<br>0 | nap |  |  |  | ATL8C4<br>8016:6<br>74..47<br>0 | 0.58 | g37383<br>00 | 98 | 448 | 7.1e-<br>42 | (AC005<br>309)<br>putati<br>ve<br>glutar<br>edoxin<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 164323 | ATU026<br>263 | ATL8C9<br>109:57<br>..572       | nap |  |  |  | ATL8C9<br>109:57<br>..474       | 0.57 | g10089<br>0  | 98 | 114 |             | hypoth<br>etical<br>protei<br>n -<br>maize<br>[]  |
| 164324 | ATU026<br>264 | ATL8S2<br>0687:8<br>7..465      | nap |  |  |  | ATL8S2<br>0687:8<br>7..465      | 0.57 | g38610<br>12 | 98 | 131 | 3.4e-<br>08 | (AJ235<br>271)<br>RIBOSO<br>MAL<br>PROTEI<br>N L36<br>(rpmJ)<br>[Ricke<br>ttsia<br>prowaz                           |

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|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|--------|-------------|------------------------------|---|
| 164325 | ATU026<br>265 | ATL8C3<br>0752:5<br>016..5<br>365 | nap |  |  |  | ATL8C3<br>0752:5<br>016..5<br>365 | 0.55 | g30045<br>46                  | 98     | 169         | 5.6e-<br>10                  | ekil<br>(AC003<br>673)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164326 | ATU026<br>266 | ATL8S1<br>050:34<br>5..44         | nap |  |  |  | ATL8S1<br>050:23<br>0..44         | 0.54 | g45843<br>53                  | 98     | 90          | 5.4e-<br>05                  | (AC006<br>420)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164327 | ATU026<br>267 | ATL8C4<br>0684:3<br>647..1<br>40  | nap |  |  |  | ATL8C4<br>0684:3<br>356..1<br>69  | 0.53 | g43888<br>25,<br>g43887<br>24 | 98, 43 | 1886,<br>84 | 6.6e-<br>188,<br>1.5e-<br>05 | (AC006<br>528)<br>putati<br>ve pol<br>polypr<br>otein<br>with<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>(Pfam:<br>PF0007<br>8)<br>[Arabi<br>dopsis<br>thalia |

|        |               |                            |     |  |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164328 | ATU026<br>268 | ATL8C3<br>282:22<br>86..1  | nap |  |  |  |  |  |  | ATL8C3<br>282:21<br>93..31<br>2  | 0.52 | g32427<br>13 | 98 | 2442 | 4.3e-<br>226 | na];<br>(AC006<br>413)<br>putati<br>ve<br>Athila<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164329 | ATU026<br>269 | ATL8C1<br>505:79<br>5..627 | nap |  |  |  |  |  |  | ATL8C1<br>505:73<br>2..633       | 0.52 | g45067<br>17 | 98 | 126  | 1.9e-<br>09  | riboso<br>mal<br>protei<br>n S29<br>[Homo<br>sapien<br>s]  |
| 164330 | ATU026<br>270 | ATL8C4<br>7301:1<br>135..1 | nap |  |  |  |  |  |  | ATL8C4<br>7301:1<br>080..5<br>85 | 0.49 | g46783<br>02 | 98 | 290  | 2.1e-<br>35  | (AL049<br>655)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                           |

|        |               |                                   |     |  |  |                                 |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|---------------------------------|------|--------------|----|------|--------------|---|
| 164331 | ATU026<br>271 | ATL8C2<br>3827:1<br>..1255        | nap |  |  | ATL8C2<br>3827:2<br>10..90<br>6 | 0.46 | g45443<br>96 | 98 | 1020 | 9.9e-<br>107 | (AC007<br>047)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164332 | ATU026<br>272 | ATL8S2<br>3667:2<br>84..87        | nap |  |  |                                 |      | g24956<br>41 | 98 | 181  | 1.2e-<br>13  | HYPOTH<br>ETICAL<br>7.8 KD<br>PROTEI<br>N IN<br>PEPB-<br>FDX<br>INTERG<br>ENIC<br>REGION<br>[Pseud<br>omonas<br>aerugi<br>nosa] |
| 164333 | ATU026<br>273 | ATL8C2<br>2394:1<br>584..1<br>796 | nap |  |  |                                 |      | g47339<br>63 | 98 | 212  | 0.998        | (AC007<br>261)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164334 | ATU026<br>274 | ATL8C4<br>0698:4<br>44..29<br>4   | nap |  |  |                                 |      | g45843<br>53 | 98 | 97   | 1.0e-<br>05  | (AC006<br>420)<br>unknow<br>n<br>protei<br>n  |

|        |               |                                   |     |  |  |  |  |  |  |    |     |             |   |
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| 164335 | ATU026<br>275 | ATL8C3<br>1462:3<br>882..4<br>593 | nap |  |  |  |  |  |  | 98 | 126 | 1.5e-<br>10 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164336 | ATU026<br>276 | ATL8S9<br>818:13<br>7..255        | nap |  |  |  |  |  |  | 98 | 149 | 2.2e-<br>09 | hypoth<br>etical<br>protei<br>n (B2<br>elemen<br>t) -<br>mouse<br>[]  |
| 164337 | ATU026<br>277 | ATL8S2<br>4215:4<br>17..1         | nap |  |  |  |  |  |  | 98 | 151 | 2.4e-<br>07 | (Al021<br>411)<br>hypoth<br>etical<br>protei<br>n<br>SC7H1.<br>25c<br>[Strep<br>tomyce<br>s<br>coelic<br>olor]              |
| 164338 | ATU026<br>278 | ATL8C2<br>4775:1<br>613..1<br>464 | nap |  |  |  |  |  |  | 98 | 200 | 2.8e-<br>14 | defens<br>in<br>AMP1 -<br>Dahlia<br>mercki  |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|--|
| 164339 | ATU026<br>279 | ATL8C1<br>0522:6<br>11..45<br>0 | nap |  |  |  |  |  |  |  |  |  | g19148<br>70 | 98 | 113 |             |   | i<br>[Dahli<br>a<br>mercki<br>i,<br>seeds,<br>Peptid<br>e, 50<br>aa] |
| 164340 | ATU026<br>280 | ATL8C9<br>11:468<br>..590       | nap |  |  |  |  |  |  |  |  |  | g48504<br>07 | 98 | 93  | 0.0003<br>8 | (AC007<br>357)<br>EST<br>gb T21<br>221<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164341 | ATU026<br>281 | ATL8S8<br>101:46<br>..548       | nap |  |  |  |  |  |  |  |  |  | g42630<br>57 | 98 | 354 | 9.0e-<br>22 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia                               |  |



[illegible]

|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164342 | ATU026<br>282 | ATL8C4<br>6579:2<br>193..3<br>948 | nap |  |  |  |  |  |  |  |  | g46894<br>53 | 98 | 178 | 1.0e-<br>12 | [na]<br>(AC006<br>267)<br>predic<br>ted<br>protei<br>n of<br>unknow<br>n functi<br>on [Arabi<br>dopsis<br>thalia<br>na] |
| 164343 | ATU026<br>283 | ATL8S2<br>7405:1<br>62..35        | nap |  |  |  |  |  |  |  |  | g13343<br>66 | 98 | 104 | 6.1e-<br>06 | (X0244<br>l) gtg<br>start<br>[Nicot<br>iana<br>tabacu<br>m]   |
| 164344 | ATU026<br>284 | ATL8C3<br>4490:1<br>528..1<br>375 | nap |  |  |  |  |  |  |  |  | g45843<br>53 | 98 | 96  | 0.0001<br>4 | (AC006<br>420}<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164345 | ATU026<br>285 | ATL8C9<br>706:36<br>..227         | nap |  |  |  |  |  |  |  |  | g11710<br>7  | 98 | 233 | 1.6e-<br>18 | CYTOCH<br>ROME C<br>OXIDAS<br>E POLYPE<br>PTIDE<br>VC [Ipomo  |

|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |                    |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|--------------------|
| 164346 | ATU026<br>286 | ATL8C4<br>8900:1<br>075..7<br>66 | nap |  |  |  |  |  |  |  |  |  | g22450<br>90 | 98 | 90  | 1.1e-<br>05 | (Z9734<br>3)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   | ea<br>batata<br>s] |
| 164347 | ATU026<br>287 | ATL8C3<br>4426:3<br>64..63<br>4  | nap |  |  |  |  |  |  |  |  |  | g40391<br>52 | 98 | 120 | 6.9e-<br>05 | (AF104<br>221)<br>low<br>temper<br>ature<br>and<br>salt<br>respon<br>sive<br>protei<br>n<br>LTI6B<br>[Arabi<br>dopsis<br>thalia<br>na] |                    |
| 164348 | ATU026<br>288 | ATL8S2<br>7539:3<br>03..46<br>3  | nap |  |  |  |  |  |  |  |  |  | g14217<br>51 | 98 | 154 | 2.0e-<br>05 | (U6059<br>2)<br>putati<br>ve<br>ORF;<br>conser<br>ved in<br>5'<br>leader<br>s of<br>plant  |                    |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164349 | ATU026<br>289 | ATL8C1<br>8892:7<br>18..1       | nap |  |  |  |  |  |  |  |  |  | g40380<br>66 | 98 | 698 | 1.7e-<br>43 | SAMdC<br>[Pisum<br>sativu<br>m]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164350 | ATU026<br>290 | ATL8C3<br>8706:6<br>54..77<br>5 | nap |  |  |  |  |  |  |  |  |  | g48504<br>07 | 98 | 98  | 0.0002<br>4 | (AC007<br>357)<br>EST<br>gb T21<br>221<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 164351 | ATU026<br>291 | ATL8C1<br>7711:3<br>8..193      | nap |  |  |  |  |  |  |  |  |  | g54876<br>8  | 98 | 119 | 8.1e-<br>05 | 50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L33<br>[Therm<br>us<br>aquati<br>cus<br>thermo<br>philus<br>]                         |
| 164352 | ATU026        | ATL8C2                          | nap |  |  |  |  |  |  |  |  |  | g48864       | 97 | 429 | 2.2e-       | (AL050  |

|        |               |                                 |     |  |  |  |  |  |                       |              |    |     |             |   |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|-----------------------|--------------|----|-----|-------------|---|--|
|        | 292           | 5367:1<br>660..2<br>57          |     |  |  |  |  |  | 5367:8<br>96..25<br>7 | 81           |    |     |             | 44  | 261)<br>hypoth<br>etical<br>protei<br>n<br>[Homo<br>sapien<br>s] |
| 164353 | ATU026<br>293 | ATL8C2<br>008:37<br>2..494      | nap |  |  |  |  |  |                       | g48504<br>07 | 98 | 115 | 9.7e-<br>05 | (AC007<br>357)<br>EST<br>gb T21<br>221<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164354 | ATU026<br>294 | ATL8C1<br>4170:2<br>28..40<br>3 | nap |  |  |  |  |  |                       | g42637<br>80 | 98 | 167 | 0.56        | (AC006<br>068)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |  |
| 164355 | ATU026<br>295 | ATL8C1<br>1981:1<br>..382       | nap |  |  |  |  |  |                       | g13372<br>0  | 98 | 370 | 3.6e-<br>25 | 30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S11<br>[Esche<br>richia<br>coli]  |  |
| 164356 | ATU026        | ATL8C4                          | nap |  |  |  |  |  |                       | g47411       | 98 | 332 | 9.0e-       | (AL049  |  |

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|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|--|----|--|
|        | 296           | 8657:1<br>431..5<br>82           |     |  |  |  |  |  |  | 85           |    |     |             |  | 20 | 746)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164357 | ATU026<br>297 | ATL8C2<br>9467:4<br>72..31<br>7  | nap |  |  |  |  |  |  | g29824<br>42 | 98 | 166 | 1.0e-<br>13 | (AL022<br>224)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |    |  |
| 164358 | ATU026<br>298 | ATL8C9<br>641:49<br>27..50<br>79 | nap |  |  |  |  |  |  | g45843<br>53 | 98 | 98  | 0.0004<br>8 | (AC006<br>420)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |    |  |
| 164359 | ATU026<br>299 | ATL8S1<br>3794:9<br>2..293       | nap |  |  |  |  |  |  | g32985<br>55 | 98 | 98  | 0.0021      | (AC004<br>681)<br>putati<br>ve<br>homeob<br>ox<br>protei<br>n, 3'<br>partia<br>l<br>[Arabi |    |  |



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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--------------|----|-----|-------------|---|
| 164363 | ATU026<br>303 | ATL8C3<br>8891:3<br>22..19<br>4   | nap |  |  |  |  |  | g13621<br>07 | 98 | 110 | 1.9e-<br>07 | GUT8-<br>2a<br>protei<br>n -<br>common<br>tobacco<br>[]   |
| 164364 | ATU026<br>304 | ATL8C4<br>7497:1<br>322..1<br>444 | nap |  |  |  |  |  | g48504<br>07 | 98 | 163 | 1.3e-<br>10 | (AC007<br>357)<br>EST<br>gb T21<br>221<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164365 | ATU026<br>305 | ATL8S2<br>5981:6<br>10..47<br>3   | nap |  |  |  |  |  | g10089<br>0  | 98 | 171 | 2.1e-<br>12 | hypoth<br>etical<br>protei<br>n -<br>maize<br>[]  |
| 164366 | ATU026<br>306 | ATL8S2<br>6740:5<br>6..184        | nap |  |  |  |  |  | g10089<br>0  | 98 | 134 |             | hypoth<br>etical<br>protei<br>n -<br>maize<br>[]  |
| 164367 | ATU026<br>307 | ATL8C4<br>18:111<br>9..361        | nap |  |  |  |  |  | g90578       | 98 | 99  | 0.87        | H-2<br>class<br>I<br>histoc<br>ompat<br>ibility<br>antige<br>n T15  |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |
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| 164368 | ATU026<br>308 | ATL8S2<br>3883:1<br>41..26<br>7 | nap |  |  |  |  |  |  |  |  |  | g90654       | 98 | 176 | 7.9e-<br>15 | hypoth<br>etical<br>protei<br>n (B2<br>elemen<br>t) -<br>mouse<br>[]  |
| 164369 | ATU026<br>309 | ATL8C6<br>48:608<br>1..590<br>6 | nap |  |  |  |  |  |  |  |  |  | g13507<br>46 | 98 | 65  | 0.50        | 60S<br>RIBOSO<br>MAL<br>PROTEI<br>N L40<br>(CEP52<br>) []   |
| 164370 | ATU026<br>310 | ATL8C2<br>7834:5<br>49..92<br>1 | nap |  |  |  |  |  |  |  |  |  | g32878<br>61 | 97 | 138 |             | PUTATI<br>VE<br>TRYPSI<br>N<br>INHIBI<br>TOR<br>T01O24<br>.26<br>PRECUR<br>SOR<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164371 | ATU026<br>311 | ATL8S8<br>043:54<br>8..137      | nap |  |  |  |  |  |  |  |  |  | g35818<br>41 | 97 | 124 | 5.2e-<br>09 | (AL031<br>541)<br>hypoth<br>etical<br>protei<br>n   |



|        |               |                                   |     |  |  |  |  |  |  |      |              |    |      |              |   |
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| 164372 | ATU026<br>312 | ATL8C3<br>1987:2<br>808..1<br>541 | nap |  |  |  |  |  |  | 0.91 | g41604<br>41 | 97 | 438  | 3.5e-<br>45  | SCI35.<br>08c<br>[strep<br>tomyce<br>s<br>coelic<br>olor]<br>(AF098<br>674)<br>latera<br>l<br>suppre<br>ssor<br>protei<br>n<br>[Lycop<br>ersico<br>n<br>escule<br>ntum] |
| 164373 | ATU026<br>313 | ATL8C2<br>1279:4<br>..2128        | nap |  |  |  |  |  |  | 0.90 | g30471<br>11 | 97 | 1305 | 6.2e-<br>135 | (AF058<br>919)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164374 | ATU026<br>314 | ATL8C8<br>063:1.<br>.635          | nap |  |  |  |  |  |  | 0.88 | g40989<br>68 | 97 | 613  | 1.1e-<br>54  | (U8129<br>4)<br>germin<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia  |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|---|
| 164375 | ATU026<br>315 | ATL8C3<br>7625:6<br>83..1        | nap |  |  |  | ATL8C3<br>7625:6<br>38..24<br>3  | 0.84 | g36418<br>70 | 97 | 195  | 2.5e-<br>19 | na]<br>(AJ011<br>013)<br>hypothe-<br>tical<br>protein<br>[Cicer-<br>arietium] |
| 164376 | ATU026<br>316 | ATL8C2<br>3810:2<br>327..1<br>63 | nap |  |  |  | ATL8C2<br>3810:2<br>327..1<br>80 | 0.84 | g45572<br>73 | 97 | 531  | 6.6e-<br>53 | aspart-<br>ylgluc-<br>osamin-<br>idase<br>precursor<br>[Homo<br>sapiens]      |
| 164377 | ATU026<br>317 | ATL8C3<br>5863:1<br>..805        | nap |  |  |  | ATL8C3<br>5863:1<br>52..80<br>5  | 0.83 | g16539<br>54 | 97 | 94   | 7.1e-<br>08 | (D9091<br>7)<br>hypothe-<br>tical<br>protein<br>[Synec-<br>hocystis<br>sp.]   |
| 164378 | ATU026<br>318 | ATL8S2<br>3590:4<br>91..16<br>4  | nap |  |  |  | ATL8S2<br>3590:4<br>20..24<br>7  | 0.82 | g10723<br>97 | 97 | 271  | 4.1e-<br>20 | (X9335<br>8)<br>phac<br>[Sinor-<br>hizobium<br>meliloti]                      |
| 164379 | ATU026<br>319 | ATL8C4<br>4174:4<br>097..1       | nap |  |  |  | ATL8C4<br>4174:4<br>097..1       | 0.80 | g46461<br>96 | 97 | 3398 | 0.0         | (AC007<br>230)<br>Contai  |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |  |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|---|
|        |               |                                   |     |  |  |  |  |  | 0                                 |      |              |    |      |              |  | ns<br>similarity<br>to<br>F13P17<br>.8 [] |
| 164380 | ATU026<br>320 | ATL8C5<br>293:53<br>7..113<br>2   | nap |  |  |  |  |  | ATL8C5<br>293:53<br>7..113<br>2   | 0.80 | g38602<br>76 | 97 | 162  | 2.6e-<br>11  | (AC005<br>824)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]              |   |
| 164381 | ATU026<br>321 | ATL8C4<br>5824:2<br>276..1<br>29  | nap |  |  |  |  |  | ATL8C4<br>5824:2<br>079..1<br>29  | 0.79 | g44552<br>50 | 97 | 1172 | 6.6e-<br>103 | (AL035<br>523)<br>putative<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]             |   |
| 164382 | ATU026<br>322 | ATL8C3<br>3880:6<br>813..4<br>445 | nap |  |  |  |  |  | ATL8C3<br>3880:6<br>379..4<br>641 | 0.75 | g47739<br>20 | 97 | 2363 |              | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>product<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 164383 | ATU026<br>323 | ATL8C2<br>0620:3<br>..2410        | nap |  |  |  |  |  | ATL8C2<br>0620:3<br>..2383        | 0.72 | g17097<br>93 | 97 | 84   | 0.992        | SALIV<br>ARY<br>PROLIN   |   |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |                               |        |              |                              |   |
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| 164384 | ATU026<br>324 | ATL8C5<br>0164:5<br>757..4<br>38 | nap |  |  |  |  |  |  | ATL8C5<br>0164:5<br>739..4<br>38 | 0.71 | g38057<br>69,<br>g28326<br>47 | 97, 62 | 1955,<br>307 | 1.3e-<br>198,<br>4.3e-<br>19 | E-RICH<br>PROTEI<br>N PO<br>(ALLEL<br>E M)<br>(CONTA<br>INS:<br>PEPTID<br>E P-D)<br>[Homo<br>sapien<br>s] |
| 164385 | ATU026<br>325 | ATL8C4<br>3634:1<br>..1231       | nap |  |  |  |  |  |  | ATL8C4<br>3634:6<br>28..12<br>31 | 0.69 | g43888<br>26                  | 97     | 707          |                              | (AC006<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |

|        |               |                                   |     |  |  |  |  |  |      |                               |        |              |                              |   |
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| 164386 | ATU026<br>326 | ATL8C2<br>4644:1<br>391..2<br>927 | nap |  |  |  |  |  | 0.66 | g13635<br>28                  | 97     | 1667         | 4.4e-<br>144                 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]  |
| 164387 | ATU026<br>327 | ATL8C4<br>2325:1<br>990..1        | nap |  |  |  |  |  | 0.63 | g45859<br>30                  | 97     | 766          | 7.2e-<br>77                  | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 164388 | ATU026<br>328 | ATL8C3<br>3441:2<br>408..1        | nap |  |  |  |  |  | 0.63 | g38057<br>69                  | 97     | 2482         | 1.9e-<br>259                 | (AC005<br>693)<br>putati<br>ve<br>mudR-<br>like.<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164389 | ATU026<br>329 | ATL8C3<br>2553:5<br>080..5<br>97  | nap |  |  |  |  |  | 0.62 | g38753<br>00,<br>g28299<br>10 | 97, 67 | 283,<br>2312 | 3.6e-<br>21,<br>3.5e-<br>224 | (Z6816<br>0)<br>Simila<br>rity<br>to<br>Yeast<br>putati<br>ve   |

[illegible]

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |              |    |      |              |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|--|
| 164390 | ATU026<br>330 | ATL8C2<br>2371:1<br>..1684       | nap |  |  |  |  |  |  | ATL8C2<br>2371:5<br>7..168<br>4  | 0.60 | g38853<br>30 | 97 | 1734 | 2.1e-<br>164 | (AC005<br>623)<br>putati<br>ve cytoch<br>rome<br>p450<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] | 291)<br>Unknow<br>n protei<br>n, contai<br>ns regula<br>tor of<br>chromo<br>some con<br>den<br>sation<br>motifs<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164391 | ATU026<br>331 | ATL8C1<br>302:61<br>48..19<br>01 | nap |  |  |  |  |  |  | ATL8C1<br>302:61<br>01..19<br>01 | 0.59 | g28654<br>24 | 97 | 4737 | 0.0          | (AF039<br>371)<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |  |
| 164392 | ATU026        | ATL8S3                           | nap |  |  |  |  |  |  | ATL8S3                           | 0.57 | g34521       | 97 | 176  | 3.6e-        | (AJ004   |  |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
|        | 332           | 088:39<br>..357                  |     |  |  |  | 088:93<br>..332                  |      | 40           |    |      | 15           | 901)<br>resist<br>ance<br>protei<br>n<br>[Glyci<br>ne<br>max]   |
| 164393 | ATU026<br>333 | ATL8C1<br>6959:1<br>11..52<br>68 | nap |  |  |  | ATL8C1<br>6959:1<br>11..52<br>60 | 0.57 | g43887<br>19 | 97 | 2106 | 1.2e-<br>190 | (AC006<br>413)<br>putati<br>ve<br>myosin<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164394 | ATU026<br>334 | ATL8C2<br>9649:1<br>..2764       | nap |  |  |  | ATL8C2<br>9649:2<br>24..27<br>64 | 0.56 | g43253<br>51 | 97 | 3456 | 0.0          | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na] |



|        |               |                                 |     |  |  |  |                                 |      |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|------|--------------|---|
| 164395 | ATU026<br>335 | ATL8S2<br>8535:1<br>..443       | nap |  |  |  | ATL8S2<br>8535:6<br>0..443      | 0.56 | g12549<br>98 | 97 | 222  | 3.7e-<br>11  | (U2958<br>7)<br>homolo<br>gous<br>to<br>moaE<br>gene<br>of E.<br>coli;<br>Method<br>:<br>concep<br>tual<br>transl<br>ation<br>suppli<br>ed by<br>author<br>[Rhodo<br>bacter<br>sphaer<br>oides] |
| 164396 | ATU026<br>336 | ATL8C2<br>5678:3<br>84..58<br>3 | nap |  |  |  | ATL8C2<br>5678:3<br>84..58<br>3 | 0.54 | g25296<br>60 | 97 | 135  | 0.0065       | (AC002<br>535)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164397 | ATU026<br>337 | ATL8C7<br>82:127<br>1..255<br>5 | nap |  |  |  | ATL8C7<br>82:127<br>1..243<br>7 | 0.50 | g13635<br>28 | 97 | 1598 | 3.5e-<br>149 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]  |
| 164398 | ATU026<br>338 | ATL8C3<br>7973:1                | nap |  |  |  | ATL8C3<br>7973:1                | 0.47 | g46783<br>73 | 97 | 239  | 3.2e-<br>15  | (AL049<br>656)  |

|        |               |                                 |     |  |  |  |  |                            |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------|------|--------------|----|-----|-------------|--|
| 164399 | ATU026<br>339 | ATL8C8<br>887:26<br>89..91<br>2 | nap |  |  |  |  | 54..98<br>0                | 0.43 | g44552<br>03 | 97 | 898 | 9.8e-<br>92 | putative<br>protein<br>[Arabis<br>dopsis<br>thaliana<br>na]                    |
| 164400 | ATU026<br>340 | ATL8C6<br>930:25<br>5..741      | nap |  |  |  |  | ATL8C6<br>930:67<br>8..316 | 0.41 | g30333<br>83 | 97 | 174 | 0.0025      | (AC004<br>238)<br>unknown<br>protein<br>[Arabis<br>dopsis<br>thaliana<br>na]   |
| 164401 | ATU026<br>341 | ATL8C1<br>8604:5<br>51..1       | nap |  |  |  |  |                            |      | g28275<br>47 | 97 | 364 | 2.6e-<br>33 | (AL021<br>635)<br>predicted<br>protein<br>[Arabis<br>dopsis<br>thaliana<br>na] |
| 164402 | ATU026<br>342 | ATL8C1<br>4759:2                | nap |  |  |  |  |                            |      | g11724<br>40 | 97 | 138 | 2.8e-<br>07 | CYTOCH<br>ROME   |



|        |               |                                   |     |  |  |  |  |  |  |              |    |      |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|-------------|--|
| 164405 | ATU026<br>345 | ATL8C2<br>1528:4<br>15..50<br>1   | nap |  |  |  |  |  |  | g48836<br>10 | 97 | 106  | 0.16        | (AC006<br>922)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 164406 | ATU026<br>346 | ATL8C1<br>6684:2<br>214..2<br>318 | nap |  |  |  |  |  |  | g38602<br>76 | 97 | 134  | 7.1e-<br>07 | (AC005<br>824)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 164407 | ATU026<br>347 | ATL8C6<br>02:159<br>0..461        | nap |  |  |  |  |  |  | g35823<br>21 | 97 | 599  | 1.2e-<br>64 | (AC005<br>496)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164408 | ATU026<br>348 | ATL8C1<br>3980:4<br>825..8<br>91  | nap |  |  |  |  |  |  | g43357<br>20 | 97 | 3439 | 0.0         | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e Tal-<br>1   |



|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|--------------|---|
| 164413 | ATU026<br>353 | ATL8C2<br>8620:1<br>..582         | nap |  |  |  |  |  |  |  |  | g97616<br>9  | 97 | 741  | 1.3e-<br>72  | muscul<br>us]<br>(L4718<br>5)<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 164414 | ATU026<br>354 | ATL8C2<br>2335:4<br>925..2<br>923 | nap |  |  |  |  |  |  |  |  | g43887<br>22 | 97 | 2008 | 1.1e-<br>171 | (AC006<br>413)<br>putati<br>ve<br>centro<br>meric<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 164415 | ATU026<br>355 | ATL8C8<br>376:39<br>14..1         | nap |  |  |  |  |  |  |  |  | g29613<br>74 | 97 | 2141 | 4.4e-<br>136 | (AL022<br>141)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164416 | ATU026        | ATL8S1                            | nap |  |  |  |  |  |  |  |  | g10857       | 97 | 113  | 6.6e-        | cut C   |

|        |               |                                 |     |  |  |  |  |  |  |  |  |    |      |  |
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| 164417 | 356           | 7530:1<br>..476                 |     |  |  |  |  |  |  |  |  | 29 | 06   | prote<br>n -<br>Pseudo<br>monas<br>thermo<br>carbox<br>ydovor<br>ans<br>[Pseud<br>omonas<br>thermo<br>carbox<br>ydovor<br>ans] |
| 164418 | ATU026<br>357 | ATL8S1<br>3674:4<br>76..26<br>2 | nap |  |  |  |  |  |  |  |  | 97 | 215  | 7.0e-<br>10<br>(AC005<br>936)<br>putati<br>ve<br>protei<br>nase<br>inhibi<br>tor II<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 164419 | ATU026<br>358 | ATL8C3<br>1606:2<br>5..865      | nap |  |  |  |  |  |  |  |  | 97 | 104  | 5.4e-<br>05<br>(AC006<br>200)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 164419 | ATU026<br>359 | ATL8C2<br>4830:9<br>47..1       | nap |  |  |  |  |  |  |  |  | 97 | 1097 | 2.6e-<br>97<br>(AC006<br>592)<br>putati<br>ve.   |

[illegible]

|        |               |                                 |     |  |  |  |  |  |                           |             |             |     |             |  |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|---------------------------|-------------|-------------|-----|-------------|--|---|
| 164420 | ATU026<br>360 | ATL8S1<br>9786:2<br>79..39<br>2 | nap |  |  |  |  |  |                           | g13136<br>5 | 97          | 101 | 8.8e-<br>05 | PHOTOS<br>YSTEM<br>II<br>REACTI<br>ON<br>CENTRE<br>L<br>PROTEI<br>N<br>(PSII<br>5 KD<br>PROTEI<br>N)<br>[Antir<br>rhinum<br>majus] |   |
| 164421 | ATU026<br>361 | ATL8S5<br>415:53<br>8..1        | nap |  |  |  |  |  | ATL8S5<br>415:53<br>8..15 | 0.99        | g13349<br>7 | 96  | 499         | 6.1e-<br>48  | RIBOSO<br>ME<br>RECYCL<br>ING<br>FACTOR<br>(RIBOS<br>OME<br>RELEASE<br>ING<br>FACTOR<br>)<br>(RRF)<br>[Esche<br>richia<br>coli] |



|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 164422 | ATU026<br>362 | ATL8C4<br>4373:8<br>28..30<br>71  | nap |  |  |  | ATL8C4<br>4373:8<br>28..30<br>07  | 0.90 | g45859<br>37 | 96 | 1787 | 1.5e-<br>157 | (AC007<br>211)<br>putati<br>ve<br>repl<br>ic<br>ation<br>protei<br>n Al<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 164423 | ATU026<br>363 | ATL8C4<br>8914:4<br>547..2<br>196 | nap |  |  |  | ATL8C4<br>8914:4<br>492..2<br>260 | 0.90 | g49143<br>68 | 96 | 1838 | 1.1e-<br>159 | (AC007<br>584)<br>hypoth<br>etical<br>protei<br>n<br>simila<br>r to<br>T18A10<br>.3<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164424 | ATU026<br>364 | ATL8C4<br>5789:5<br>00..1         | nap |  |  |  | ATL8C4<br>5789:5<br>00..37        | 0.86 | g17299<br>38 | 96 | 238  | 2.8e-<br>23  | THIORE<br>DOXIN-<br>LIKE<br>PROTEI<br>N<br>SLR023<br>3<br>[Synec<br>hocyst<br>is<br>sp.]                                 |
| 164425 | ATU026<br>365 | ATL8C3<br>390:33<br>26..1         | nap |  |  |  | ATL8C3<br>390:33<br>26..20        | 0.85 | g29795<br>50 | 96 | 1304 | 1.4e-<br>132 | (AC003<br>680)<br>putati   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |  |
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| 164426 | ATU026<br>366 | ATL8C4<br>74:727<br>..2212       | nap |  |  |  |  | ATL8C4<br>74:727<br>..2159       | 0.77 | g49143<br>79 | 96 | 227 | 1.2e-<br>16 | (AC007<br>584)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 164427 | ATU026<br>367 | ATL8C1<br>6006:8<br>70..10<br>90 | nap |  |  |  |  | ATL8C1<br>6006:1<br>090..8<br>70 | 0.75 | g13520<br>54 | 96 | 106 | 0.0011      | ATP<br>SYNTA<br>SE 6<br>KD<br>SUBUNI<br>T,<br>MITOCH<br>ONDRIA<br>L [ ]                        |
| 164428 | ATU026<br>368 | ATL8C9<br>429:17<br>1..332       | nap |  |  |  |  | ATL8C9<br>429:17<br>1..332       | 0.73 | g45672<br>97 | 96 | 109 | 0.0002<br>4 | (AC006<br>918)<br>putati<br>ve 5S<br>riboso<br>mal<br>RNA<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 164429 | ATU026<br>369 | ATL8C4<br>5090:1<br>..2535        | nap |  |  |  | ATL8C4<br>5090:4<br>9..253<br>5   | 0.73 | g47739<br>20 | 96 | 2533 | 2.1e-<br>245 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 164430 | ATU026<br>370 | ATL8C2<br>4442:1<br>635..1        | nap |  |  |  | ATL8C2<br>4442:1<br>504..1<br>40  | 0.73 | g60085<br>5  | 96 | 417  | 8.8e-<br>39  | (U1788<br>7)<br>bZIP<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 164431 | ATU026<br>371 | ATL8C3<br>7196:6<br>947..5<br>051 | nap |  |  |  | ATL8C3<br>7196:6<br>836..5<br>051 | 0.69 | g44544<br>64 | 96 | 804  |              | (AC006<br>234)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 164432 | ATU026<br>372 | ATL8C2<br>4511:1<br>..1361        | nap |  |  |  | ATL8C2<br>4511:4<br>8..136<br>1   | 0.68 | g21296<br>77 | 96 | 1029 | 4.1e-<br>108 | probab<br>lel N-<br>acetyl<br>transf<br>erase<br>hookle<br>ss 1 -<br>Arabid<br>opsis<br>thalia |



|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164437 | ATU026<br>377 | ATL8C1<br>9305:1<br>42..32<br>77 | nap |  |  |  |  |  | ATL8C1<br>9305:1<br>42..31<br>06 | 0.57 | g47739<br>20 | 96 | 3066 | 1.1e-<br>290 | related<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 164438 | ATU026<br>378 | ATL8C9<br>476:97<br>3..337<br>9  | nap |  |  |  |  |  | ATL8C9<br>476:97<br>3..320<br>4  | 0.55 | g45389<br>84 | 96 | 3278 | 4.4e-<br>274 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164439 | ATU026<br>379 | ATL8S7<br>982:15<br>6..570       | nap |  |  |  |  |  | ATL8S7<br>982:15<br>6..512       | 0.53 | g53236<br>0  | 96 | 204  | 5.7e-<br>17  | (AL049<br>487)<br>putati<br>ve<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 164440 | ATU026<br>380 | ATL8C2<br>5599:4<br>48..17<br>87 | nap |  |  |  |  |  | ATL8C2<br>5599:6<br>41..17<br>02 | 0.44 | g41851<br>31 | 96 | 1151 | 2.4e-<br>79  | (L1458<br>0)<br>ORFD1<br>[Bacil<br>lus<br>subtil<br>is]                                    |
|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              | (AC005<br>724)<br>putati<br>ve   |

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| 164441 | ATU026<br>381 | ATL8C3<br>5849:6<br>51..1         | nap |  |  |  |  |  |  | g47339<br>74 | 96 | 780 | 2.7e-<br>75 | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]         |
| 164442 | ATU026<br>382 | ATL8S3<br>0803:1<br>96..1         | nap |  |  |  |  |  |  | g12627<br>22 | 96 | 136 | 0.10        | (D1751<br>0)<br>ORF67C<br>[Pinus<br>thunbe<br>rgii]   |
| 164443 | ATU026<br>383 | ATL8C1<br>7195:3<br>315..3<br>395 | nap |  |  |  |  |  |  | g45672<br>97 | 96 | 104 | 0.0014      | (AC006<br>918)<br>putati<br>ve 5S<br>riboso<br>mal<br>RNA [Arabi<br>dopsis<br>thalia<br>na] |
| 164444 | ATU026<br>384 | ATL8C7<br>910:31<br>33..20<br>76  | nap |  |  |  |  |  |  | g48357<br>95 | 96 | 697 | 2.1e-<br>81 | (AC007<br>296)<br>F25C20<br>.23<br>[Arabi   |

|        |               |                                  |     |  |  |  |  |  |  |  |  |  |                               |        |             |                             |  |
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| 164445 | ATU026<br>385 | ATL8C1<br>356:15<br>61..51<br>76 | nap |  |  |  |  |  |  |  |  |  | g48877<br>45,<br>g44540<br>39 | 96, 86 | 555,<br>543 | 4.3e-<br>65,<br>2.8e-<br>53 | dopsis<br>thalia<br>nal<br>(AC006<br>533)<br>putati<br>ve<br>Na+/H+<br>exchan<br>ging<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AL035<br>394)<br>putati<br>ve<br>Na+/H+<br>-<br>exchan<br>ging<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164446 | ATU026<br>386 | ATL8S2<br>8304:2<br>47..1        | nap |  |  |  |  |  |  |  |  |  | g34350<br>3                   | 96     | 139         | 0.0056                      | (L1225<br>0)<br>riboso<br>mal<br>protei<br>n S12<br>[Nicot<br>iana<br>tabacu<br>m]   |

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| 164447 | ATU026<br>387 | ATL8C1<br>2131:2<br>791..5<br>56  | nap |  |  |  |  |  |  | g45444<br>12,<br>g36950<br>23                                   | 96, 74               | 296,<br>171                  | 2.7e-<br>36,<br>1.9e-<br>19                                  | (AC006<br>955)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AF055<br>850)<br>unknow<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164448 | ATU026<br>388 | ATL8C5<br>797:16<br>2..82         | nap |  |  |  |  |  |  | g45672<br>97  | 96                   | 101                          |  | (AC006<br>918)<br>putati<br>ve 5S<br>riboso<br>mal<br>RNA<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 164449 | ATU026<br>389 | ATL8C1<br>3973:1<br>574..6<br>404 | nap |  |  |  |  |  |  | g45672<br>97,<br>g45389<br>66,<br>g42621<br>75,<br>g33675<br>26 | 96,<br>74,<br>48, 35 | 109,<br>2555,<br>179,<br>388 | 0.0006<br>4,<br>1.1e-<br>267,<br>9.8e-<br>17,<br>4.0e-<br>41 | (AC006<br>918)<br>putati<br>ve 5S<br>riboso<br>mal<br>RNA<br>[Arabi<br>dopsis<br>thalia<br>nal];  |









|        |               |                                 |     |  |  |  |  |  |  |              |    |     |             |  |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|--|--|
| 164457 | ATU026<br>397 | ATL8C2<br>0274:5<br>95..51<br>5 | nap |  |  |  |  |  |  | g45672<br>97 | 96 | 107 | 0.0001<br>0 | (AC006<br>918)<br>putati<br>ve 5S<br>riboso<br>mal<br>RNA<br>[Arabi<br>dopsis<br>thalia<br>na] | gag-<br>protea<br>se<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164458 | ATU026<br>398 | ATL8C4<br>0412:1<br>18..49<br>5 | nap |  |  |  |  |  |  | g30972<br>60 | 96 | 89  | 3.7e-<br>07 | (AJ005<br>741)<br>self-<br>incomp<br>atibil<br>ity<br>[Papav<br>er<br>rheas<br>]               |  |
| 164459 | ATU026<br>399 | ATL8C2<br>2233:6<br>75..25<br>1 | nap |  |  |  |  |  |  | g14028<br>1  | 96 | 211 | 8.9e-<br>10 | HYPOTH<br>ETICAL<br>16.8<br>KD<br>PROTEI<br>N (ORF<br>143)<br>[Glyci<br>ne<br>max]             |  |

|        |               |                                   |     |  |  |  |  |  |  |  |               |                      |                                     |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|---------------|----------------------|-------------------------------------|--|
| 164460 | ATU026<br>400 | ATL8C1<br>3491:4<br>526..4<br>606 | nap |  |  |  |  |  |  | g45672<br>97                                   | 96            | 119                  | 4.1e-<br>05                         | (AC006<br>918)<br>putati<br>ve 5S<br>riboso<br>mal<br>RNA<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164461 | ATU026<br>401 | ATL8C4<br>0347:7<br>..1308        | nap |  |  |  |  |  |  | g42063<br>09                                   | 96            | 1800                 | 6.5e-<br>181                        | (AF049<br>112)<br>prpol<br>[Zea<br>mays]   |
| 164462 | ATU026<br>402 | ATL8S2<br>9784:1<br>..134         | nap |  |  |  |  |  |  | g10089<br>0                                    | 96            | 140                  | 4.0e-<br>09                         | hypoth<br>etical<br>protei<br>n -<br>maize<br>[ ]  |
| 164463 | ATU026<br>403 | ATL8C3<br>3657:1<br>912..2<br>83  | nap |  |  |  |  |  | ATL8C3<br>3657:1<br>912..3<br>00                                       | g48951<br>87                                   | 95            | 74                   | 0.0002<br>5                         | (AC007<br>661)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 164464 | ATU026<br>404 | ATL8C1<br>8004:7<br>792..1        | nap |  |  |  |  |  | ATL8C1<br>8004:1<br>212..2<br>94,<br>ATL8C1<br>8004:7<br>391..1<br>600 | g45570<br>68,<br>g33778<br>16,<br>g41153<br>62 | 95,<br>78, 38 | 3101,<br>728,<br>837 | 0.0,<br>1.9e-<br>74,<br>9.6e-<br>85 | (AC007<br>045)<br>putati<br>ve pol<br>ypr<br>otei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |



|        |               |                                   |     |  |  |  |  |  |      |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|------|--|--------------|----|------|--------------|--|
| 164466 | ATU026<br>406 | ATL8S1<br>7388:5<br>65..57        | nap |  |  |  |  |  | 0.94 |  | g21043<br>38 | 95 | 712  | 8.1e-<br>54  | (Z9538<br>8)<br>hypoth<br>etical<br>protei<br>n<br>Rv2140<br>C<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]      |
| 164467 | ATU026<br>407 | ATL8S5<br>048:1.<br>.361          | nap |  |  |  |  |  | 0.94 |  | g38609<br>51 | 95 | 147  | 3.8e-<br>13  | (AJ235<br>271)<br>unknow<br>n<br>[Ricke<br>ttsia<br>prowaz<br>ekii]  |
| 164468 | ATU026<br>408 | ATL8C3<br>3253:2<br>939..4<br>694 | nap |  |  |  |  |  | 0.92 |  | g40068<br>82 | 95 | 1438 | 1.9e-<br>148 | (Z9970<br>7)<br>UDP-<br>glucur<br>onyltr<br>ansfer<br>ase-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164469 | ATU026        | ATL8S2                            | nap |  |  |  |  |  | 0.91 |  | g32942       | 95 | 171  | 4.8e-        | (AL031)  |

| 409    | 0729:5<br>00..17 |     |  |  | 0729:4<br>82..17                  | 46   |    |      | 12          | 031)<br>putati<br>ve<br>transc<br>riptio<br>nal<br>regula<br>tor<br>[Strep<br>tomyce<br>s<br>coelic<br>olor] |
|--------|------------------|-----|--|--|-----------------------------------|------|----|------|-------------|--|
| 164470 | ATU026<br>410    | nap |  |  | ATL8S2<br>0742:1<br>0..485        | 0.91 | 95 | 411  | 8.9e-<br>35 | (Z9253<br>9)<br>hypoth<br>etical<br>protei<br>n<br>Rv1025<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 164471 | ATU026<br>411    | nap |  |  | ATL8C1<br>0337:5<br>561..4<br>486 | 0.88 | 95 | 1489 |             | (AC007<br>268)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                      |
| 164472 | ATU026<br>412    | nap |  |  | ATL8C4<br>5245:5<br>78..77<br>0   | 0.84 | 95 | 427  | 3.0e-<br>22 | (AC004<br>255)<br>T1F9.6<br>[Arabi   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 164473 | ATU026<br>413 | ATL8C3<br>4712:1<br>883..5<br>31 | nap |  |  |  |  | ATL8C3<br>4712:1<br>774..5<br>31 | 0.84 | g47590<br>78 | 95 | 271  | 6.3e-<br>25  | serolo<br>gicall<br>y define<br>d colon<br>cancer<br>antigen<br>n 1<br>[Homo<br>sapien<br>s]                                  |
| 164474 | ATU026<br>414 | ATL8C3<br>1184:1<br>717..1       | nap |  |  |  |  | ATL8C3<br>1184:1<br>717..2<br>83 | 0.84 | g36458<br>98 | 95 | 2441 | 1.3e-<br>210 | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possib<br>ly a<br>post-<br>transp<br>ositio<br>n mutati<br>on<br>[Zea<br>mays] |
| 164475 | ATU026<br>415 | ATL8C3<br>6284:1<br>61..39<br>11 | nap |  |  |  |  | ATL8C3<br>6284:1<br>70..30<br>11 | 0.84 | g43371<br>96 | 95 | 1625 | 1.4e-<br>172 | (AC006<br>403)<br>putati<br>ve serine<br>/threo<br>nine<br>recept<br>or<br>kinase   |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 164476 | ATU026<br>416 | ATL8C3<br>1280:9<br>57..55        | nap |  |  |  | ATL8C3<br>1280:8<br>01..82        | 0.82 | g45389<br>71 | 95 | 232  | 2.3e-<br>25  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL049<br>488)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164477 | ATU026<br>417 | ATL8C4<br>6405:1<br>420..1        | nap |  |  |  | ATL8C4<br>6405:1<br>420..4<br>6   | 0.82 | g17033<br>18 | 95 | 687  | 2.5e-<br>65  | ANNEXI<br>N-LIKE<br>PROTEI<br>N RJ4<br>[Fraga<br>ria x<br>ananas<br>sa]   |
| 164478 | ATU026<br>418 | ATL8C4<br>4211:4<br>250..1<br>371 | nap |  |  |  | ATL8C4<br>4211:3<br>938..1<br>371 | 0.81 | g45394<br>14 | 95 | 2834 | 6.9e-<br>287 | (AL049<br>524)<br>putati<br>ve<br>subtil<br>isin-<br>like<br>protea<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 164479 | ATU026<br>419 | ATL8S1<br>1102:1<br>17..54<br>4   | nap |  |  |  | ATL8S1<br>1102:1<br>17..49<br>4   | 0.79 | g45855<br>95 | 95 | 262  | 1.0e-<br>18  | (AL049<br>628)<br>putati<br>ve<br>acetyl  |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |     |             |  |
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| 164480 | ATU026<br>420 | ATL8C1<br>5494:3<br>643..1      | nap |  |  |  |  | ATL8C1<br>5494:3<br>643..2<br>34 | 0.77 | g38501<br>11 | 95 | 485 | 1.1e-<br>41 | transf<br>erase<br>[Strep<br>tomyce<br>s<br>coelic<br>olor]<br>(AL033<br>388)<br>hypoth<br>etical<br>integr<br>al<br>membra<br>ne<br>protei<br>n,<br>putati<br>ve<br>involv<br>ement<br>in<br>lipid<br>metabo<br>lism<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombel] |
| 164481 | ATU026<br>421 | ATL8C3<br>5376:3<br>06..96<br>2 | nap |  |  |  |  | ATL8C3<br>5376:3<br>06..93<br>5  | 0.77 | g18711<br>88 | 95 | 296 | 2.4e-<br>35 | (U9043<br>9)<br>Zinc<br>finger<br>protei<br>n 8,<br>ZFP8<br>[Arabi<br>dopsis<br>thalia   |

|        |               |                                 |     |  |  |  |                                  |      |                               |        |            |                             |   |
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| 164482 | ATU026<br>422 | ATL8C2<br>3484:1<br>690..1<br>2 | nap |  |  |  | ATL8C2<br>3484:1<br>645..6<br>04 | 0.61 | g38057<br>62,<br>g45389<br>09 | 95, 88 | 81,<br>821 | 3.3e-<br>08,<br>3.9e-<br>84 | na]<br>(AC005<br>693)<br>hypoeth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AL049<br>482)<br>putati<br>ve<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164483 | ATU026<br>423 | ATL8C1<br>6731:1<br>006..1      | nap |  |  |  | ATL8C1<br>6731:8<br>02..24<br>7  | 0.58 | g47339<br>70                  | 95     | 164        | 8.3e-<br>20                 | (AC007<br>264)<br>hypoeth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164484 | ATU026<br>424 | ATL8C3<br>9185:3<br>733..5<br>1 | nap |  |  |  | ATL8C3<br>9185:3<br>688..5<br>1  | 0.57 | g40380<br>62                  | 95     | 3894       | 0.0                         | (AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>MuDR<br>[Arabi<br>dopsis  |

|        |               |                                 |     |  |  |  |                                 |      |              |    |     |             |   |
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| 164485 | ATU026<br>425 | ATL8C3<br>92:246<br>8..207<br>1 | nap |  |  |  | ATL8C3<br>92:231<br>5..207<br>1 | 0.55 | g32876<br>89 | 95 | 308 | 3.7e-<br>17 | thalia<br>na]<br>(AC003<br>979)<br>Contai<br>ns<br>simila<br>rity<br>to<br>gibber<br>ellin-<br>regula<br>ted<br>protei<br>n 2<br>precur<br>sor<br>(GAST1<br>)<br>homolo<br>g<br>gb U11<br>765<br>from<br>A.<br>thalia<br>na.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164486 | ATU026<br>426 | ATL8S6<br>061:37<br>7..1        | nap |  |  |  | ATL8S6<br>061:33<br>5..18       | 0.54 | g31697<br>22 | 95 | 309 | 2.3e-<br>22 | (AF007<br>569)<br>succin<br>ate<br>dehydr<br>ogenas<br>e<br>membra<br>ne  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |   |  |
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| 164487 | ATU026<br>427 | ATL8C1<br>0819:1<br>..2883       | nap |  |  |  |  |  | ATL8C1<br>0819:1<br>09..28<br>83 | 0.53 | g30212<br>83 | 95 | 3579 | 2.7e-<br>309  | (AL022<br>347)<br>serine<br>/threo<br>nine<br>kinase<br>- like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164488 | ATU026<br>428 | ATL8C2<br>5206:2<br>80..12<br>87 | nap |  |  |  |  |  | ATL8C2<br>5206:2<br>86..12<br>26 | 0.49 | g32128<br>60 | 95 | 450  | 1.7e-<br>58   | (AC004<br>005)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 164489 | ATU026<br>429 | ATL8C4<br>3327:1<br>..2311       | nap |  |  |  |  |  | ATL8C4<br>3327:2<br>41..39<br>8  | 0.48 | g47739<br>20 | 95 | 2476 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis |  |

|        |                |                                   |     |  |  |  |  |                                  |      |  |              |    |      |              |  |
|--------|----------------|-----------------------------------|-----|--|--|--|--|----------------------------------|------|--|--------------|----|------|--------------|--|
| 164490 | ATU026<br>430  | ATL8C1<br>622:12<br>58..29<br>65  | nap |  |  |  |  | ATL8C1<br>622:12<br>58..29<br>52 | 0.43 |  | g27696<br>42 | 95 | 2058 | 2.5e-<br>202 | thalia<br>na]<br>(Z9721<br>5)<br>nine-<br>cis-<br>epoxyc<br>aroten<br>oid<br>dioxyc<br>enase<br>[Lycop<br>ersico<br>n<br>escule<br>ntum] |
| 164491 | ATU026<br>431. | ATL8C2<br>894:90<br>6..9          | nap |  |  |  |  | ATL8C2<br>894:37<br>7..44        | 0.41 |  | g40975<br>28 | 95 | 230  | 5.4e-<br>22  | (U6389<br>8)<br>AppB<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164492 | ATU026<br>432  | ATL8C1<br>4425:4<br>803..7<br>134 | nap |  |  |  |  |                                  |      |  | g42630<br>63 | 95 | 1647 | 3.6e-<br>142 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164493 | ATU026<br>433  | ATL8C4<br>6597:2<br>617..4<br>732 | nap |  |  |  |  |                                  |      |  | g45860<br>66 | 95 | 3080 | 6.9e-<br>309 | (AC006<br>194)<br>putati<br>ve pol<br>ypr  |

|        |               |                                   |     |  |  |  |  |  |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|--------------|---|
| 164494 | ATU026<br>434 | ATL8C4<br>2987:1<br>..1222        | nap |  |  |  |  |  |  | g42062<br>07 | 95 | 1010 | 3.8e-<br>105 | (AF071<br>527)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164495 | ATU026<br>435 | ATL8C2<br>0679:1<br>077..1<br>999 | nap |  |  |  |  |  |  | g43888<br>23 | 95 | 761  | 1.1e-<br>71  | (AC006<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 164496 | ATU026<br>436 | ATL8C2<br>0675:5<br>809..3<br>214 | nap |  |  |  |  |  |  | g43888<br>25 | 95 | 2026 | 4.6e-<br>208 | (AC006<br>528)<br>putati<br>ve pol<br>ypr<br>otei<br>n with<br>revers<br>e                                  |



|        |               |                                  |     |  |  |  |  |  |  |  |      |              |  |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|------|--------------|--|---|
| 164497 | ATU026<br>437 | ATL8C1<br>0757:1<br>..593        | nap |  |  |  |  |  |  |  | 924  | 6.3e-<br>92  | (AC006<br>259)<br>putati<br>ve<br>P450<br>[Arabi<br>dopsis<br>thalia<br>nal]                 | transc<br>riptas<br>e<br>domain<br>(Pfam:<br>PF0007<br>8)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164498 | ATU026<br>438 | ATL8C4<br>5265:8<br>78..17<br>34 | nap |  |  |  |  |  |  |  | 290  | 3.6e-<br>29  | (AC007<br>261)<br>envelo<br>pe-<br>like<br>protie<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |   |
| 164499 | ATU026<br>439 | ATL8C4<br>6811:1<br>..1906       | nap |  |  |  |  |  |  |  | 1254 | 4.5e-<br>134 | (AC004<br>684)<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi                   |   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 164500 | ATU026<br>440 | ATL8C4<br>8943:9<br>35..32<br>1   | nap |  |  |  |  | ATL8C4<br>8943:8<br>50..32<br>1   | 0.98 | g13620<br>93 | 94 | 569 | 6.1e-<br>57 | dopsis<br>thalia<br>na]   |
| 164501 | ATU026<br>441 | ATL8C3<br>2721:6<br>662..5<br>705 | nap |  |  |  |  | ATL8C3<br>2721:6<br>479..5<br>705 | 0.97 | g30803<br>60 | 94 | 595 | 1.0e-<br>57 | (AL022<br>580)<br>hypoht<br>tetica<br>l<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 164502 | ATU026<br>442 | ATL8S2<br>9482:1<br>..525         | nap |  |  |  |  | ATL8S2<br>9482:5<br>3..525        | 0.96 | g13457<br>49 | 94 | 339 | 3.3e-<br>30 | 10 KD<br>CHAPER<br>ONIN<br>(PROTE<br>IN<br>CPN10)<br>(PROTE<br>IN<br>GROES)<br>[Pseud<br>omonas |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 164503 | ATU026<br>443 | ATL8C8<br>045:15<br>45..1        | nap |  |  |  | ATL8C8<br>045:15<br>32..31<br>2  | 0.96 | g49143<br>58 | 94 | 479  | 2.5e-<br>44  | putida<br>j<br>(AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164504 | ATU026<br>444 | ATL8C5<br>802:18<br>92..14<br>6  | nap |  |  |  | ATL8C5<br>802:16<br>41..14<br>6  | 0.95 | g32016<br>28 | 94 | 2260 |              | (AC004<br>669)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 164505 | ATU026<br>445 | ATL8C4<br>4371:1<br>..989        | nap |  |  |  | ATL8C4<br>4371:1<br>1..961       | 0.93 | g44163<br>03 | 94 | 1296 | 1.2e-<br>100 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |
| 164506 | ATU026<br>446 | ATL8C3<br>7809:4<br>606..1<br>44 | nap |  |  |  | ATL8C3<br>7809:4<br>363..1<br>81 | 0.86 | g17636<br>42 | 94 | 430  | 1.7e-<br>31  | (U8003<br>4)<br>mitoch<br>ondria<br>l<br>interm<br>ediate<br>peptid<br>ase<br>precu<br>sor            |

|        |               |                                  |     |  |  |  |  |  |   |               |              |    |      |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|---|---------------|--------------|----|------|--|
| 164507 | ATU026<br>447 | ATL8C5<br>908:19<br>93..1        | nap |  |  |  |  |  | ATL8C5<br>908:19<br>57..21<br>2                                     | 0.85          | g29110<br>42 | 94 | 1953 | [Homo<br>sapien<br>s]<br>(AL021<br>961)<br>Phosph<br>oglyce<br>rate<br>dehydr<br>ogenas<br>e -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164508 | ATU026<br>448 | ATL8C4<br>9051:1<br>802..5<br>48 | nap |  |  |  |  |  | ATL8C4<br>9051:1<br>730..5<br>64                                    | 0.85          | g45390<br>02 | 94 | 739  | (AL049<br>481)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164509 | ATU026<br>449 | ATL8C7<br>970:35<br>54..1        | nap |  |  |  |  |  | ATL8C7<br>970:19<br>70..25<br>,<br>ATL8C7<br>970:35<br>54..20<br>94 | 0.82,<br>0.68 | g44173<br>09 | 94 | 3341 | (AC006<br>446)<br>putati<br>ve pol<br>ypr<br>otein<br>with a<br>revers<br>e<br>transc<br>riptas<br>e   |



|        |               |                                  |     |  |  |  |  |  |                                  |      |                               |        |              |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|-------------------------------|--------|--------------|-----------------------------|---|
| 164513 | ATU026<br>453 | ATL8C4<br>8509:9<br>93..1        | nap |  |  |  |  |  | ATL8C4<br>8509:9<br>93..51<br>7  | 0.76 | g35102<br>54                  | 94     | 1056         | 7.2e-<br>98                 | ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164514 | ATU026<br>454 | ATL8C5<br>0123:2<br>833..6<br>87 | nap |  |  |  |  |  | ATL8C5<br>0123:2<br>747..6<br>87 | 0.75 | g47339<br>65,<br>g47739<br>08 | 94, 59 | 143,<br>1260 | 1.3e-<br>05,<br>3.0e-<br>97 | (AC007<br>261)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164515 | ATU026        | ATL8C2                           | nap |  |  |  |  |  | ATL8C2                           | 0.75 | g33778                        | 94     | 342          | 1.1e-                       | (AF076  |







|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 164520 | ATU026<br>460 | ATL8C2<br>7:2396<br>.15    | nap |  |  |  |  |  | ATL8C2<br>7:690.<br>.75         | 0.69 | g45843<br>55 | 94 | 2132 | 1.7e-<br>199 | n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |      |              | (AC006<br>420)<br>putati<br>ve Ac-<br>like<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 164521 | ATU026<br>461 | ATL8C4<br>1459:1<br>706..1 | nap |  |  |  |  |  | ATL8C4<br>1459:1<br>706..1<br>2 | 0.68 | g36458<br>98 | 94 | 2477 | 4.9e-<br>210 | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possib<br>ly a<br>post-<br>transp<br>ositio<br>n<br>mutati<br>on<br>[Zea<br>mays] |
|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |      |              |  |
| 164522 | ATU026<br>462 | ATL8C1<br>482:1.<br>.504   | nap |  |  |  |  |  | ATL8C1<br>482:16<br>4..413      | 0.68 | g47259<br>49 | 94 | 805  | 2.5e-<br>43  | (AL049<br>730)<br>PEARLI<br>l-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia  |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|--|
| 164523 | ATU026<br>463 | ATL8C3<br>3737:6<br>3..121<br>8  | nap |  |  |  | ATL8C3<br>3737:6<br>3..986       | 0.65 | g12795<br>98 | 94 | 764  | 5.1e-<br>77 | na]<br>(Z7175<br>2)<br>pectin<br>methyl<br>esterase<br>[Nicot<br>iana<br>plumbago<br>ginifolia]                        |
| 164524 | ATU026<br>464 | ATL8C9<br>221:95<br>94..56<br>12 | nap |  |  |  | ATL8C9<br>221:94<br>07..56<br>12 | 0.62 | g44173<br>09 | 94 | 3225 |             | (AC006<br>446)<br>putative<br>polyprotein<br>with a<br>reverse<br>transcriptase<br>domain<br>[Arabidopsis<br>thaliana] |
| 164525 | ATU026<br>465 | ATL8C1<br>8047:1<br>..1384       | nap |  |  |  | ATL8C1<br>8047:9<br>19..13<br>84 | 0.62 | g40564<br>33 | 94 | 992  | 2.8e-<br>93 | (AC005<br>990)<br>Similars<br>to<br>antiser-<br>specific<br>proline-<br>rich<br>protein                                |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 164526 | ATU026<br>466 | ATL8C1<br>092:14<br>37..1         | nap |  |  |  |  |  | ATL8C1<br>092:14<br>37..10<br>8   | 0.59 | g40334<br>31 | 94 | 1624 | 1.0e-<br>169 | (CEX)<br>gb X60<br>376<br>from<br>Brassi<br>ca<br>napus.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164527 | ATU026<br>467 | ATL8C1<br>9923:2<br>094..1<br>005 | nap |  |  |  |  |  | ATL8C1<br>9923:1<br>601..1<br>132 | 0.57 | g46789<br>26 | 94 | 493  | 1.3e-<br>42  | (AL049<br>711)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 164528 | ATU026<br>468 | ATL8S1<br>8760:5<br>28..1         | nap |  |  |  |  |  | ATL8S1<br>8760:4<br>86..68        | 0.55 | g14868<br>3  | 94 | 576  | 3.4e-<br>54  | (M5534<br>3)<br>open<br>readin<br>g   |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 164529 | ATU026<br>469 | ATL8C2<br>382:20<br>10..30<br>79 | nap |  |  |  |  |  |  | ATL8C2<br>382:20<br>79..29<br>34 | 0.54 | g44172<br>85 | 94 | 197 | 7.4e-<br>27 | frame<br>[Frank<br>ia<br>sp.]<br>(AC007<br>019)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 164530 | ATU026<br>470 | ATL8C4<br>8446:1<br>..302        | nap |  |  |  |  |  |  | ATL8C4<br>8446:4<br>8..276       | 0.52 | g32199<br>51 | 94 | 94  | 0.073       | HYPOTH<br>ETICAL<br>11.7<br>KD<br>PROTEI<br>N<br>C6B12.<br>13 IN<br>CHROMO<br>SOME I<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe] |
| 164531 | ATU026<br>471 | ATL8C2<br>3991:1<br>965..1       | nap |  |  |  |  |  |  | ATL8C2<br>3991:1<br>893..3<br>13 | 0.49 | g35401<br>88 | 94 | 596 | 1.6e-<br>49 | (AC004<br>122)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164532 | ATU026        | ATL8C4                           | nap |  |  |  |  |  |  | ATL8C4                           | 0.49 | g40068       | 94 | 254 | 2.0e-       | (Z9970   |



|        |               |                                   |     |  |  |  |  |  |  |              |    |      |  |  |  |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|--|--|--|-------------|--|
|        | 476           | 5670:1<br>051..1                  |     |  |  |  |  |  |  | 28           |    |      |  |  |  | 121         | protei<br>n -<br>maize<br>[Zea<br>mays]  |
| 164537 | ATU026<br>477 | ATL8C3<br>5136:9<br>30..14<br>46  | nap |  |  |  |  |  |  | g45672<br>87 | 94 | 711  |  |  |  | 2.1e-<br>56 | (AC006<br>841)<br>putati<br>ve<br>dihydr<br>ofolat<br>e<br>reduct<br>ase,<br>3',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164538 | ATU026<br>478 | ATL8C4<br>8124:3<br>72..79<br>5   | nap |  |  |  |  |  |  | g11551<br>6  | 94 | 164  |  |  |  | 2.6e-<br>13 | CALMOD<br>ULIN<br>[]   |
| 164539 | ATU026<br>479 | ATL8C9<br>562:18<br>52..25<br>29  | nap |  |  |  |  |  |  | g12127<br>59 | 94 | 497  |  |  |  | 4.7e-<br>47 | (X8919<br>2) DNA<br>bindin<br>g protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164540 | ATU026<br>480 | ATL8C3<br>9264:2<br>424..1<br>495 | nap |  |  |  |  |  |  | g25788<br>22 | 94 | 1047 |  |  |  | 5.6e-<br>98 | (AB000<br>835)<br>gerany<br>l<br>gerany  |

|        |               |                            |     |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|---|
| 164541 | ATU026<br>481 | ATL8C1<br>974:37<br>1..1   | nap |  |  |  |  |  |  |  |  | g24941<br>17 | 94 | 157 | 1.7e-<br>13 | (AC002<br>376)<br>Contai<br>ns<br>simila<br>rity<br>to<br>Papave<br>r S3<br>self-<br>incomp<br>atibil<br>ity<br>protei<br>n<br>(gbIX8<br>7100).<br>[Arabi<br>dopsis<br>thalia<br>na] | l<br>pyroph<br>osphat<br>e<br>syntha<br>se<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164542 | ATU026<br>482 | ATL8S1<br>9686:4<br>66..56 | nap |  |  |  |  |  |  |  |  | g14028<br>1  | 94 | 153 | 0.0030      | HYPOTH<br>ETICAL<br>16.8<br>KD<br>PROTEI<br>N (ORF<br>143)<br>[Glyci<br>ne]  |   |

[illegible]

|        |               |                                  |     |  |  |  |  |  |  |                               |        |             |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|-------------------------------|--------|-------------|-----------------------------|---|
| 164543 | ATU026<br>483 | ATL8C1<br>6083:8<br>86..23<br>46 | nap |  |  |  |  |  |  | g31278<br>38,<br>g24928<br>20 | 94, 94 | 809,<br>708 | 3.7e-<br>75,<br>4.5e-<br>65 | [max]<br>(AL023<br>496)<br>hypoth<br>etical<br>protein<br>[Strep<br>tomyces<br>coelicolor];<br>HYPOTH<br>ETICAL<br>54.0<br>KD<br>PROTEIN IN<br>NRGA-<br>USD<br>INTERGENIC<br>REGION<br>[Bacillus<br>subtilis] |
| 164544 | ATU026<br>484 | ATL8S1<br>169:62<br>8..168       | nap |  |  |  |  |  |  | g32490<br>87                  | 94     | 545         | 8.4e-<br>53                 | (AC004<br>473)<br>Contains<br>similarity<br>to TMV<br>resistance<br>protein N<br>homolog  |







|        |               |                           |     |  |  |  |  |  |  |                            |              |              |      |             |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|----------------------------|--------------|--------------|------|-------------|---|
| 164549 | ATU026<br>489 | ATL8C7<br>703:1.<br>.1207 | nap |  |  |  |  |  |  |                            | g45104<br>15 | 94           | 602  | 1.2e-<br>47 | [Sorghum<br>bicolor]<br>(AC006<br>929)<br>putative<br>chloroplast<br>nucleoid DNA<br>binding protein<br>[Arabidopsis<br>thaliana] |
| 164550 | ATU026<br>490 | ATL8C4<br>9427:1<br>..945 | nap |  |  |  |  |  |  |                            | g13455<br>92 | 94           | 526  | 1.9e-<br>47 | 14-3-3-LIKE<br>PROTEIN GF14<br>EPSILON<br>[Arabidopsis<br>thaliana]   |
| 164551 | ATU026<br>491 | ATL8C1<br>5192:1<br>..905 | nap |  |  |  |  |  |  | ATL8C1<br>5192:5<br>8..905 | 0.95         | g22451<br>27 | 1252 | 2.8e-<br>68 | (Z9734<br>4)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana]  |

|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164552 | ATU026<br>492 | ATL8S5<br>251:12<br>4..581 | nap |  |  |  | ATL8S5<br>251:19<br>3..566       | 0.92 | g17229<br>51 | 93 | 628  | 4.7e-<br>59  | HYPOTH<br>ETICAL<br>18.2<br>KD<br>PROTEI<br>N<br>CY373.<br>03<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]   |
| 164553 | ATU026<br>493 | ATL8C3<br>1626:3<br>295..1 | nap |  |  |  | ATL8C3<br>1626:3<br>295..1<br>94 | 0.91 | g21911<br>95 | 93 | 2663 | 3.8e-<br>231 | (AF007<br>271)<br>contai<br>ns<br>simila<br>rity<br>to T.<br>cruzi<br>3' end<br>fragne<br>nt<br>(PID:g<br>161956<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164554 | ATU026<br>494 | ATL8C1<br>836:35<br>9..656 | nap |  |  |  | ATL8C1<br>836:35<br>9..608       | 0.90 | g48952<br>01 | 93 | 461  | 0.013        | (AC007<br>661)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis  |

|        |               |                            |     |  |  |  |                                  |      |                               |        |             |                             |  |               |
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| 164555 | ATU026<br>495 | ATL8C1<br>0834:1<br>..5910 | nap |  |  |  | ATL8C1<br>0834:1<br>14..57<br>75 | 0.88 | g15146<br>43                  | 93     | 4292        | 0.0                         | (Z7052<br>4)<br>PDR5-<br>like<br>ABC<br>transp<br>orter<br>[Spiro<br>dela<br>polyrr<br>hiza]   | thalia<br>na] |
| 164556 | ATU026<br>496 | ATL8C1<br>6770:9<br>66..1  | nap |  |  |  | ATL8C1<br>6770:7<br>40..61<br>7  | 0.86 | g42621<br>75,<br>g48951<br>66 | 93, 64 | 805,<br>123 | 8.9e-<br>79,<br>6.6e-<br>08 | (AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC007<br>231)<br>putati<br>ve<br>Tall<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |               |
| 164557 | ATU026<br>497 | ATL8S2<br>3751:1<br>..507  | nap |  |  |  | ATL8S2<br>3751:3<br>3..371       | 0.84 | g13382<br>3,<br>g11729<br>57  | 93, 68 | 189,<br>259 | 9.8e-<br>16,<br>3.0e-<br>21 | 30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S17<br>[Esche  |               |



|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |              |  |
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| 164561 | ATU026<br>501 | ATL8C2<br>2752:1<br>..2145      | nap |  |  |  |  | ATL8C2<br>2752:7<br>0..212<br>1 | 0.82 | g28298<br>96 | 93 | 1637 | 3.0e-<br>172 | dopsis<br>thalia<br>na]  |
| 164562 | ATU026<br>502 | ATL8C4<br>5794:2<br>156..7<br>2 | nap |  |  |  |  | ATL8C4<br>5794:1<br>817..7<br>2 | 0.82 | g47739<br>14 | 93 | 740  | 6.0e-<br>48  | (AC002<br>311)<br>highly<br>similar<br>r to<br>auxin-<br>regula<br>ted<br>protei<br>n GH3,<br>gp X60<br>033 18<br>591<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164563 | ATU026<br>503 | ATL8C1<br>7206:8<br>76..29<br>0 | nap |  |  |  |  | ATL8C1<br>7206:8<br>21..29<br>0 | 0.81 | g45899<br>58 | 93 | 307  | 8.0e-<br>29  | (AC007<br>169)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |

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| 164564 | ATU026<br>504 | ATL8C1<br>1052:2<br>084..3<br>36 | nap |  |  |  | ATL8C1<br>1052:1<br>926..5<br>00 | 0.81 | g44552<br>50 | 93 | 550  | 3.6e-<br>41  | na]<br>(AL035<br>523)<br>putați<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164565 | ATU026<br>505 | ATL8C2<br>3618:2<br>21..18<br>56 | nap |  |  |  | ATL8C2<br>3618:3<br>70..17<br>36 | 0.77 | g30753<br>99 | 93 | 595  | 5.7e-<br>34  | (AC004<br>484)<br>SF16-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 164566 | ATU026<br>506 | ATL8C1<br>9177:4<br>713..7       | nap |  |  |  | ATL8C1<br>9177:4<br>497..7       | 0.73 | g22929<br>07 | 93 | 2756 | 9.2e-<br>282 | (Y1009<br>9) P-<br>glycop<br>rotei<br>homolo<br>gue<br>[Horde<br>um<br>vulgar<br>e]       |
| 164567 | ATU026<br>507 | ATL8C7<br>745:15<br>62..28<br>04 | nap |  |  |  | ATL8C7<br>745:15<br>62..23<br>89 | 0.70 | g13635<br>28 | 93 | 1495 | 9.7e-<br>128 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]  |
| 164568 | ATU026<br>508 | ATL8C2<br>0482:1<br>548..1       | nap |  |  |  | ATL8C2<br>0482:1<br>536..4       | 0.69 | g33353<br>73 | 93 | 621  | 7.5e-<br>51  | (AC003<br>028)<br>putati  |



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| 164569 | ATU026<br>509 | ATL8C1<br>8107:9<br>96..1        | nap |  |  |  |  | 8 | ATL8C1<br>8107:7<br>74..39        | 0.69 | g39010<br>12 | 93 | 767  | 1.6e-<br>81 | ve<br>GTL1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 164570 | ATU026<br>510 | ATL8C1<br>2182:1<br>..922        | nap |  |  |  |  |   | ATL8C1<br>2182:1<br>07..92<br>2   | 0.68 | g13880<br>74 | 93 | 436  | 3.4e-<br>43 | (AJ130<br>885)<br>xylogl<br>ucan<br>endotr<br>ansgly<br>cosyla<br>se 1<br>[Fagus<br>sylvat<br>ica] |
| 164571 | ATU026<br>511 | ATL8C1<br>0208:1<br>915..3<br>83 | nap |  |  |  |  |   | ATL8C1<br>0208:1<br>792..1<br>159 | 0.65 | g45860<br>58 | 93 | 1653 |             | (U3563<br>9)<br>thiore<br>doxin-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
|        |               |                                  |     |  |  |  |  |   |                                   |      |              |    |      |             | (AC007<br>020)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |

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| 164572 | ATU026<br>512 | ATL8C3<br>0921:2<br>148..1 | nap |  |  |  | ATL8C3<br>0921:2<br>018..5<br>12 | 0.61 | 943097<br>56,<br>940380<br>62 | 93, 51 | 919,<br>851 | 3.8e-<br>103,<br>2.8e-<br>97 | (AC006<br>217)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>MuDR<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164573 | ATU026<br>513 | ATL8C4<br>9880:1<br>..1683 | nap |  |  |  | ATL8C4<br>9880:1<br>8..138<br>1  | 0.59 | 947340<br>05                  | 93     | 993         | 4.2e-<br>109                 | (AC007<br>178)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164574 | ATU026<br>514 | ATL8C5<br>911:1.<br>..1166 | nap |  |  |  | ATL8C5<br>911:81<br>..1138       | 0.57 | 944902<br>96                  | 93     | 825         |                              | (AL035<br>678)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |

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| 164575 | ATU026<br>515 | ATL8C2<br>9868:4<br>71..71        | nap |  |  |  | ATL8C2<br>9868:4<br>26..71        | 0.52 |  | g24926<br>54 | 93 | 105  | 1.8e-<br>07  | na]<br>ACYL<br>CARRIE<br>R<br>PROTEI<br>N<br>(ACP)<br>[ ]   |
| 164576 | ATU026<br>516 | ATL8C4<br>1359:3<br>430..5<br>77  | nap |  |  |  | ATL8C4<br>1359:3<br>364..1<br>832 | 0.52 |  | g44328<br>02 | 93 | 2908 | 9.8e-<br>297 | (AC006<br>437)<br>putati<br>ve pol<br>ypr<br>otein,<br>5,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164577 | ATU026<br>517 | ATL8C3<br>6048:1<br>112..1<br>83  | nap |  |  |  |                                   |      |  | g28326<br>43 | 93 | 334  | 1.5e-<br>45  | (AI021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 164578 | ATU026<br>518 | ATL8C1<br>2432:1<br>040..1<br>715 | nap |  |  |  |                                   |      |  | g34027<br>50 | 93 | 311  | 1.2e-<br>28  | (AL031<br>187)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |





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| 164584 | ATU026<br>524 | ATL8C3<br>4524:2<br>637..3<br>216 | nap |  |  |  |  |  |  |  |  | g31933<br>15 | 93 | 141  | 6.7e-<br>12  | kinase<br>[Arabi<br>dopsis<br>thalia<br>na].<br>(AF069<br>299)<br>contai<br>ns<br>simila<br>rity<br>to<br>transc<br>riptio<br>nal<br>activa<br>tor Ra<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164585 | ATU026<br>525 | ATL8C4<br>0664:8<br>50..48<br>6   | nap |  |  |  |  |  |  |  |  | g48862<br>75 | 93 | 436  | 2.0e-<br>26  | (AI050<br>300)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164586 | ATU026<br>526 | ATL8C1<br>4033:1<br>..3183        | nap |  |  |  |  |  |  |  |  | g42636<br>55 | 93 | 3029 | 8.4e-<br>281 | (AC006<br>136)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e   |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |  |
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| 164587 | ATU026<br>527 | ATL8S2<br>435:1.<br>.506          | nap |  |  |  |  |  | ATL8S2<br>435:32<br>.506          | 1.00 | g13372<br>9  | 92 | 279 | 2.9e-<br>07 | [Arabi<br>dopsis<br>thalia<br>nal]<br>CHLORO<br>PLAST<br>30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S11<br>[Nicot<br>iana<br>tabacu<br>m] |
| 164588 | ATU026<br>528 | ATL8S2<br>8194:1<br>.441          | nap |  |  |  |  |  | ATL8S2<br>8194:5<br>5..276        | 0.99 | g16517<br>77 | 92 | 220 | 1.4e-<br>17 | (D9090<br>0)<br>bacter<br>ioferr<br>itin<br>comigr<br>atory<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]                       |
| 164589 | ATU026<br>529 | ATL8C1<br>6395:3<br>511..1<br>650 | nap |  |  |  |  |  | ATL8C1<br>6395:3<br>452..1<br>650 | 0.98 | g73148<br>5  | 92 | 621 | 5.1e-<br>67 | HYPOTH<br>ETICAL<br>62.3<br>KD<br>PROTEI<br>N IN<br>PTP3-<br>ILV1<br>INTERG<br>ENIC<br>REGION<br>[Sacch                            |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |   |                                 |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|---------------------------------|
| 164590 | ATU026<br>530 | ATL8S9<br>124:55<br>5..76       | nap |  |  |  |  | ATL8S9<br>124:50<br>7..88       | 0.97 | 954839<br>1  | 92 | 364 | 3.6e-<br>28 | TRANSC<br>RIPTIO<br>N<br>ANTITE<br>RMINAT<br>ION<br>PROTEI<br>N NUSG<br>[Bacil<br>lus<br>subtil<br>is]                              | aromyc<br>es<br>cerevi<br>siae] |
| 164591 | ATU026<br>531 | ATL8S1<br>1215:5<br>66..12<br>8 | nap |  |  |  |  | ATL8S1<br>1215:2<br>17..12<br>8 | 0.97 | 911768<br>18 | 92 | 201 | 5.0e-<br>14 | HYPOTH<br>ETICAL<br>14.8<br>KD<br>PROTEI<br>N IN<br>AGAI-<br>MTR<br>INTERG<br>ENIC<br>REGION<br>(O131)<br>[Esche<br>richia<br>coli] |                                 |
| 164592 | ATU026<br>532 | ATL8C3<br>7147:1<br>001..1      | nap |  |  |  |  | ATL8C3<br>7147:1<br>001..2<br>1 | 0.93 | 933351<br>71 | 92 | 462 |             | (AF067<br>858)<br>embryo<br>-<br>specif<br>ic<br>protei<br>n 3<br>[Arabi  |                                 |



|        |               |                                  |     |  |  |  |  |   |               |              |    |      |              |  |
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| 164593 | ATU026<br>533 | ATL8C3<br>5427:1<br>..1582       | nap |  |  |  |  | ATL8C3<br>5427:2<br>19..15<br>32                                      | 0.92          | g29441<br>80 | 92 | 752  | 1.4e-<br>82  | dopsis<br>thalia<br>na]<br>(AF007<br>779)<br>trehal<br>ose-6-<br>phosph<br>ate<br>phosph<br>atase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164594 | ATU026<br>534 | ATL8C4<br>8082:2<br>834..3<br>99 | nap |  |  |  |  | ATL8C4<br>8082:2<br>693..4<br>80                                      | 0.90          | g32015<br>54 | 92 | 2081 | 2.2e-<br>215 | (AJ006<br>501)<br>beta-<br>D-<br>glucos<br>idase<br>[Tropa<br>eolum<br>majus]  |
| 164595 | ATU026<br>535 | ATL8C3<br>1033:2<br>404..1<br>06 | nap |  |  |  |  | ATL8C3<br>1033:9<br>03..10<br>6,<br>ATL8C3<br>1033:2<br>382..1<br>885 | 0.87,<br>0.99 | g47739<br>14 | 92 | 775  | 2.4e-<br>59  | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164596 | ATU026<br>536 | ATL8C4<br>0763:1<br>..4543       | nap |  |  |  |  | ATL8C4<br>0763:1<br>91..45<br>43                                      | 0.86          | g42638<br>25 | 92 | 4471 | 0.0          | (AC006<br>067)<br>hypothe<br>tical<br>protei   |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |     |             |  |
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| 164597 | ATU026<br>537 | ATL8C8<br>045:52<br>51..22<br>14 | nap |  |  |  |  |  | ATL8C8<br>045:45<br>05..22<br>14 | 0.85 | g16536<br>19 | 92 | 288 | 3.5e-<br>23 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(D9091<br>5)<br>spermi<br>dine/p<br>utresc<br>ine-<br>bindin<br>g<br>peripl<br>asmic<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.] |
| 164598 | ATU026<br>538 | ATL8S2<br>6986:3<br>00..56<br>7  | nap |  |  |  |  |  | ATL8S2<br>6986:3<br>00..51<br>2  | 0.83 | g11825<br>8  | 92 | 287 |             | DNA-<br>BINDIN<br>G<br>PROTEI<br>N HU-<br>BETA<br>(NS1)<br>(HU-1)<br>[Esche<br>richia<br>coli]   |
| 164599 | ATU026<br>539 | ATL8C8<br>641:83<br>5..1         | nap |  |  |  |  |  | ATL8C8<br>641:83<br>5..115       | 0.83 | g26512<br>99 | 92 | 349 | 1.1e-<br>39 | (AC002<br>336)<br>putati<br>ve<br>serine<br>/threo<br>nine<br>protei   |

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| 164600 | ATU026<br>540 | ATL8C4<br>2125:1<br>..1299 | nap |  |  |  |  |  |  | ATL8C4<br>2125:1<br>30..12<br>90 | 0.81 | g40068<br>77 | 92 | 1061 | 5.3e-<br>95 | n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(Z9970<br>7)<br>RNA-<br>bindin<br>g like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164601 | ATU026<br>541 | ATL8S3<br>414:1.<br>.529   | nap |  |  |  |  |  |  | ATL8S3<br>414:47<br>..529        | 0.80 | g28087<br>24 | 92 | 178  | 9.4e-<br>13 | (AL021<br>428)<br>hypoth<br>etical<br>protei<br>n<br>Rv0067<br>c<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>J]                             |
| 164602 | ATU026<br>542 | ATL8S3<br>229:1.<br>.507   | nap |  |  |  |  |  |  | ATL8S3<br>229:7.<br>.438         | 0.78 | g39154<br>50 | 92 | 365  | 7.7e-<br>37 | HYPOTH<br>ETICAL<br>20.3<br>KD<br>PROTEI<br>N IN<br>PRC-<br>PPHA<br>INTERG   |

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| 164603 | ATU026<br>543 | ATL8C4<br>9901:9<br>501..6<br>701 | nap |  |  |  |  |  | ATL8C4<br>9901:9<br>372..7<br>050 | 0.77 | g44173<br>09 | 92 | 3017 | 0.0         | ENIC<br>REGION<br>[Esche<br>richia<br>coli]<br>(AC006<br>446)<br>putati<br>ve pol<br>ypr<br>otei<br>with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164604 | ATU026<br>544 | ATL8C1<br>3483:1<br>649..3<br>001 | nap |  |  |  |  |  | ATL8C1<br>3483:1<br>649..2<br>814 | 0.75 | g42204<br>90 | 92 | 1014 | 2.2e-<br>74 | (AC006<br>069)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164605 | ATU026<br>545 | ATL8C4<br>9397:5<br>634..1        | nap |  |  |  |  |  | ATL8C4<br>9397:5<br>120..2<br>56  | 0.73 | g45443<br>72 | 92 | 2994 | 0.0         | (AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas   |

|        |               |                                  |     |  |  |  |  |  |                                   |      |              |    |      |       |   |
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| 164606 | ATU026<br>546 | ATL8C4<br>6535:1<br>..5205       | nap |  |  |  |  |  | ATL8C4<br>6535:1<br>82..51<br>50  | 0.72 | g42204<br>49 | 92 | 4952 | 0.0   | e<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>216)<br>Strong<br>simila<br>rity<br>to<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164607 | ATU026<br>547 | ATL8C4<br>0382:3<br>552..6<br>11 | nap |  |  |  |  |  | ATL8C4<br>0382:3<br>222..6<br>58  | 0.71 | g36458<br>99 | 92 | 4874 | 0.0   | (U6840<br>8) 5'<br>end<br>not<br>determ<br>ined<br>experi<br>mental<br>ly<br>[Zea<br>mays]                                      |
| 164608 | ATU026<br>548 | ATL8C5<br>0077:1<br>..3308       | nap |  |  |  |  |  | ATL8C5<br>0077:1<br>955..3<br>170 | 0.65 | g44328<br>02 | 92 | 3625 | 0.0   | (AC006<br>437)<br>putati<br>ve pol<br>polypr<br>oteins,<br>5,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 164609 | ATU026        | ATL8C4                           | nap |  |  |  |  |  | ATL8C4                            | 0.64 | g44552       | 92 | 832  | 7.4e- | (AL035  |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 164610 | 549           | 7823:1<br>114..2<br>997          |     |  |  |  | 7823:1<br>114..2<br>407          | 0.63 | g38515<br>59 | 92 | 446  | 5.9e-<br>38  | 440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
|        |               | ATL8C7<br>01:165<br>1..200       | nap |  |  |  | ATL8C7<br>01:123<br>2..348       |      |              |    |      |              | (AF084<br>829)<br>methyl<br>chlori<br>de<br>transf<br>erase<br>[Batis<br>mariti<br>ma]                      |
| 164611 | ATU026<br>551 | ATL8C3<br>742:10<br>63..38<br>70 | nap |  |  |  | ATL8C3<br>742:10<br>64..37<br>10 | 0.59 | g30636<br>97 | 92 | 820  | 6.5e-<br>102 | (AL022<br>537)<br>putati<br>ve<br>myb-<br>protei<br>n<br>(parti<br>al)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164612 | ATU026<br>552 | ATL8C2<br>8561:1<br>643..1       | nap |  |  |  | ATL8C2<br>8561:1<br>643..1<br>80 | 0.58 | g45672<br>96 | 92 | 1659 | 2.4e-<br>159 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retroee<br>lement<br>ORF1                                       |

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| 164613 | ATU026<br>553 | ATL8C4<br>3910:8<br>98..63<br>65 | nap |  |  |  |  |  | ATL8C4<br>3910:9<br>31..63<br>10 | 0.57 | g45443<br>72 | 92 | 4184 |             | protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164614 | ATU026<br>554 | ATL8S1<br>481:1.<br>.492         | nap |  |  |  |  |  | ATL8S1<br>481:92<br>..492        | 0.57 | g25000<br>21 | 92 | 199  | 1.7e-<br>10 | PHOSPH<br>ORIBOS<br>YIAMIN<br>OIMIDA<br>ZOLECA<br>RBOXAM<br>IDE<br>FORMYL<br>TRANSF<br>ERASE<br>(AICAR<br>TRANSF<br>ORMYLA<br>SE) /<br>IMP<br>CYCLOH<br>YDROLA<br>SE<br>(INOSI<br>NICASE<br>) (IMP |

|        |               |                                   |     |  |  |  |  |  |  |               |              |    |      |              |   |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|---------------|--------------|----|------|--------------|---|--|
| 164615 | ATU026<br>555 | ATL8S1<br>4838:7<br>78..13        | nap |  |  |  |  |  |  | 0.56          | g32886<br>69 | 92 | 429  | 1.7e-<br>27  | (D8641<br>1) Fmv<br>[Vibri<br>o<br>alginol<br>lyticu<br>s]                  | SYNTHETIC<br>(ATIC)<br>[Chromatium<br>vinosum] |
| 164616 | ATU026<br>556 | ATL8C4<br>6862:9<br>54..1         | nap |  |  |  |  |  |  | 0.55          | g44552<br>97 | 92 | 724  | 8.4e-<br>78  | (A1035<br>528)<br>hypothetical<br>protein<br>[Arabis<br>dopsis<br>thaliana] |  |
| 164617 | ATU026<br>557 | ATL8C3<br>2124:3<br>076..1<br>437 | nap |  |  |  |  |  |  | 0.55          | g28092<br>51 | 92 | 1055 | 5.2e-<br>113 | (AC002<br>560)<br>F21B7.<br>20<br>[Arabis<br>dopsis<br>thaliana]            |  |
| 164618 | ATU026<br>558 | ATL8C3<br>9907:5<br>63..51<br>03  | nap |  |  |  |  |  |  | 0.54,<br>0.53 | g40380<br>56 | 92 | 3073 | 1.2e-<br>275 | (AC005<br>897)<br>putative<br>transposon<br>[Arabis<br>dopsis]              |  |



|        |               |                                 |     |  |  |  |                                 |      |  |  |               |                       |                                      |  |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--|--|---------------|-----------------------|--------------------------------------|--|
| 164619 | ATU026<br>559 | ATL8C2<br>8668:1<br>155..3<br>4 | nap |  |  |  | ATL8C2<br>8668:8<br>14..15<br>1 | 0.52 |  | g29795<br>58                                   | 92            | 1432                  | 3.le-<br>148                         | thalia<br>na]<br>(AC003<br>680)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsi<br>thalia<br>na]       |
| 164620 | ATU026<br>560 | ATL8S2<br>7737:6<br>60..1       | nap |  |  |  | ATL8S2<br>7737:6<br>60..11<br>3 | 0.48 |  | g47417<br>92                                   | 92            | 208                   | 1.6e-<br>17                          | (AF101<br>047)<br>YadR<br>[Haemo<br>philus<br>ducrey<br>il]  |
| 164621 | ATU026<br>561 | ATL8C1<br>328:12<br>07..1       | nap |  |  |  | ATL8C1<br>328:11<br>44..26<br>7 | 0.46 |  | g41917<br>95                                   | 92            | 890                   | 1.4e-<br>93                          | (AC005<br>917)<br>putati<br>ve<br>zinc<br>finger<br>-like<br>protei<br>n<br>[Arabi<br>dopsi<br>thalia<br>na] |
| 164622 | ATU026<br>562 | ATL8C3<br>9941:3<br>857..1      | nap |  |  |  |                                 |      |  | g44173<br>09,<br>g36953<br>97,<br>g33778<br>34 | 92,<br>61, 58 | 3171,<br>438,<br>1706 | 0.0,<br>2.4e-<br>41,<br>4.2e-<br>151 | (AC006<br>446)<br>putati<br>ve pol<br>polypr<br>oteins<br>with a<br>revers                                   |





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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|--|-----|-------------|--|--|
| 164628 | ATU026<br>568 | ATL8C6<br>363:1.<br>.396          | nap |  |  |  |  |  |  |  |  |  | g80630<br>0  | 92 |  | 356 | 6.5e-<br>31 | (M2542<br>7)<br>unknown<br>protein<br>[Zea<br>mays]                                | found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164629 | ATU026<br>569 | ATL8C1<br>6868:1<br>179..1        | nap |  |  |  |  |  |  |  |  |  | g44328<br>68 | 92 |  | 862 | 2.7e-<br>75 | (AC006<br>300)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164630 | ATU026<br>570 | ATL8C2<br>6616:1<br>713..2<br>970 | nap |  |  |  |  |  |  |  |  |  | g43143<br>83 | 92 |  | 91  | 2.0e-<br>13 | (AC006<br>232)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 164631 | ATU026<br>571 | ATL8C2<br>2970:2<br>046..1<br>587 | nap |  |  |  |  |  |  |  |  |  | g10767<br>86 | 92 |  | 584 | 0.025       | hypoth<br>etical<br>protein<br>n l -<br>perenn<br>ial<br>teosin                    |  |

|        |               |                            |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|--|
| 164632 | ATU026<br>572 | ATL8C4<br>9485:1<br>..432  | nap |  |  |  |  |  |  |  |  |  | g45127<br>00 | 92 | 378 | 9.6e-<br>25 | (AC006<br>569)<br>putati<br>ve AP2<br>domain<br>-<br>contai<br>ning<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | te<br>[Zea<br>diplop<br>erenni<br>s]   |
| 164633 | ATU026<br>573 | ATL8C4<br>6161:1<br>..428  | nap |  |  |  |  |  |  |  |  |  | g54195<br>4  | 92 | 420 | 4.7e-<br>32 | ubiqui<br>tin<br>extens<br>ion<br>protei<br>n -<br>white<br>lupine<br>[Lupin<br>us<br>albus]                            | ubiqui<br>tin<br>extens<br>ion<br>protei<br>n -<br>white<br>lupine<br>[Lupin<br>us<br>albus] |
| 164634 | ATU026<br>574 | ATL8S2<br>8603:5<br>1..534 | nap |  |  |  |  |  |  |  |  |  | g19050<br>6  | 92 | 83  | 0.9999<br>4 | (K0320<br>6)<br>saliva<br>ry<br>prolin<br>e-rich<br>protei<br>n<br>precu<br>sor   | (K0320<br>6)<br>saliva<br>ry<br>prolin<br>e-rich<br>protei<br>n<br>precu<br>sor              |

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| 164635 | ATU026<br>575 | ATL8C3<br>5784:1<br>..478        | nap |  |  |  |  |  |  |  | g46894<br>77 | 92 | 429  | 1.0e-<br>17  | [Homo<br>sapien<br>s]<br>(AC007<br>213)<br>pseud<br>ogene<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164636 | ATU026<br>576 | ATL8C1<br>6313:6<br>27..24<br>43 | nap |  |  |  |  |  |  |  | g39129<br>24 | 92 | 2792 | 9.2e-<br>263 | (AF001<br>308)<br>CHP-<br>rich<br>hypoth<br>etical<br>protei<br>n<br>simila<br>r to<br>T10M13<br>.17.1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164637 | ATU026<br>577 | ATL8C8<br>745:25<br>37..35<br>43 | nap |  |  |  |  |  |  |  | g37383<br>35 | 92 | 416  | 3.9e-<br>46  | (AC005<br>170)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164638 | ATU026<br>578 | ATL8C4<br>240:45<br>3..1         | nap |  |  |  |  |  |  |  | g31932<br>85 | 92 | 511  | 1.3e-<br>42  | (AF069<br>298)<br>T14P8.  |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |                         |                  |                       |                        |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|-------------------------|------------------|-----------------------|------------------------|--|
| 164639 | ATU026<br>579 | ATL8C4<br>0457:4<br>69..1       | nap |  |  |  |  |  |  |  |  |  | g43098<br>65            | 92               | 159                   | 1.1e-<br>15            | 18<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 164640 | ATU026<br>580 | ATL8C3<br>227:28<br>18..78<br>5 | nap |  |  |  |  |  |  |  |  |  | g39280<br>84            | 92               | 2123                  | 1.9e-<br>231           | (AC006<br>527)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164641 | ATU026<br>581 | ATL8C1<br>0939:1<br>..850       | nap |  |  |  |  |  |  |  |  |  | g21197<br>07            | 92               | 97                    | 0.0038                 | prolin<br>e-rich<br>protei<br>n<br>precu<br>sor -<br>rat []                            |
| 164642 | ATU026<br>582 | ATL8C1<br>327:76<br>46..33      | nap |  |  |  |  |  |  |  |  |  | g44173<br>09,<br>g44173 | 92,<br>85,<br>80 | 3043,<br>426,<br>1871 | 1.1e-<br>266,<br>8.7e- | (AC006<br>446)<br>putati   |

|        |               |                           |     |  |  |  |  |  |  |                     |    |     |             |                     |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|---------------------|----|-----|-------------|---------------------|--|
| 164643 | ATU026<br>583 | ATL8S1<br>4006:3<br>27..1 | nap |  |  |  |  |  |  | 01,<br>g33778<br>34 |    |     |             | 32,<br>4.4e-<br>171 | ve pol<br>polypr<br>ote in<br>with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>446)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AF075<br>598)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal] |
|        |               |                           |     |  |  |  |  |  |  | g34492<br>68        | 92 | 180 | 1.1e-<br>14 |                     | (AL031<br>317)<br>hypoth<br>etical<br>protei   |





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|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164648 | ATU026<br>588 | ATL8C4<br>1749:1<br>..1014 | nap |  |  |  |  | ATL8C4<br>1749:1<br>69..91<br>9  | 0.95 | g42622<br>13 | 91 | 355  | 1.7e-<br>42  | repair<br>protei<br>n<br>[Liliu<br>m<br>longif<br>lorum]<br>(AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164649 | ATU026<br>589 | ATL8C1<br>5552:2<br>965..1 | nap |  |  |  |  | ATL8C1<br>5552:2<br>965..3<br>09 | 0.89 | g33373<br>61 | 91 | 1924 | 5.1e-<br>183 | (AC004<br>481)<br>ankyri<br>n-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164650 | ATU026<br>590 | ATL8C4<br>2271:1<br>..582  | nap |  |  |  |  | ATL8C4<br>2271:5<br>1..582       | 0.88 | g43372<br>05 | 91 | 624  | 5.5e-<br>65  | (AC006<br>403)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164651 | ATU026<br>591 | ATL8C2<br>35:811<br>..1    | nap |  |  |  |  | ATL8C2<br>35:811<br>..41         | 0.88 | g47339<br>87 | 91 | 165  | 2.2e-<br>10  | (AC007<br>209)<br>hypoth   |

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|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|--|--|
| 164652 | ATU026<br>592 | ATL8S9<br>302:54<br>1..1   | nap |  |  |  |  | ATL8S9<br>302:47<br>0..29        | 0.87 | g27915<br>01 | 91 | 323 | 1.6e-<br>25  | (AL021<br>246)<br>clpP<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]  |
| 164653 | ATU026<br>593 | ATL8C1<br>0959:3<br>149..1 | nap |  |  |  |  | ATL8C1<br>0959:2<br>989..4<br>15 | 0.86 | g33602<br>89 | 91 | 956 | 8.6e-<br>75  | (AF023<br>164)<br>leucin<br>e-rich<br>repeat<br>transm<br>embran<br>e<br>protei<br>n<br>kinase<br>1<br>[Zea<br>mays] |
| 164654 | ATU026<br>594 | ATL8C3<br>3886:1<br>..1727 | nap |  |  |  |  | ATL8C3<br>3886:6<br>3..172<br>7  | 0.84 | g26550<br>08 | 91 | 724 | (AF017<br>144)<br>(1-4)-<br>beta-<br>mannan<br>endohy<br>drolas<br>e<br>[Lycop<br>ersico |  |

|        |               |                                 |     |  |  |  |  |  |  |                                  |      |  |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--|--------------|----|------|--------------|---|
| 164655 | ATU026<br>595 | ATL8C3<br>599:97<br>3..138      | nap |  |  |  |  |  |  | ATL8C3<br>599:53<br>4..138       | 0.82 |  | g33954<br>24 | 91 | 946  | 1.9e-<br>79  | n<br>escule<br>ntum]<br>(AC004<br>683)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 164656 | ATU026<br>596 | ATL8C1<br>1165:2<br>398..1      | nap |  |  |  |  |  |  | ATL8C1<br>1165:2<br>398..1<br>40 | 0.80 |  | g36081<br>35 | 91 | 932  | 3.8e-<br>56  | (AC005<br>314)<br>putati<br>ve DNA<br>bindin<br>g<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 164657 | ATU026<br>597 | ATL8C3<br>8555:1<br>43..73<br>8 | nap |  |  |  |  |  |  | ATL8C3<br>8555:1<br>43..71<br>2  | 0.79 |  | g12843<br>7  | 91 | 158  | 1.5e-<br>16  | CHITOO<br>LIGOSA<br>CCHARI<br>DE<br>DEACET<br>YLASE<br>(NODUL<br>ATION<br>PROTEI<br>N B)<br>[Rhizo<br>bium<br>trifol<br>il] |
| 164658 | ATU026<br>598 | ATL8C1<br>194:1.                | nap |  |  |  |  |  |  | ATL8C1<br>194:65                 | 0.77 |  | g28327<br>08 | 91 | 1187 | 2.6e-<br>123 | (AL021<br>713)  |

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|--------|---------------|-------|-----|----------------------------------|----------------------------------|------|--------------|----|------|--------------|--|
| 164659 | ATU026<br>599 | .1220 | nap | ATL8C2<br>4116:1<br>463..3<br>36 | ATL8C2<br>4116:1<br>400..3<br>36 | 0.77 | g48504<br>06 | 91 | 1328 | 2.6e-<br>138 | beta-<br>1, 3-<br>glucan<br>ase-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal<br>(AC007<br>357)<br>Contai<br>ns<br>simila<br>rity<br>to<br>gb U42<br>445<br>Cf-2.2<br>from<br>Lycope<br>rsicon<br>pimpin<br>ellifo<br>lium<br>and<br>contai<br>ns 5<br>PF 005<br>60<br>Leucin<br>e rich<br>repeat<br>domain<br>s.<br>[Arabi<br>dopsis<br>thalia |
|--------|---------------|-------|-----|----------------------------------|----------------------------------|------|--------------|----|------|--------------|--|

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164660 | ATU026<br>600 | ATL8C2<br>1163:1<br>35..39<br>51 | nap |  |  |  | ATL8C2<br>1163:1<br>35..37<br>16 | 0.74 | g37790<br>21 | 91 | 3982 | 0.0          | na]<br>(AC005<br>171)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 164661 | ATU026<br>601 | ATL8C5<br>0235:2<br>585..2<br>91 | nap |  |  |  | ATL8C5<br>0235:2<br>471..2<br>91 | 0.74 | g47739<br>20 | 91 | 2403 | 3.1e-<br>249 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 164662 | ATU026<br>602 | ATL8C1<br>1598:4<br>472..1<br>72 | nap |  |  |  | ATL8C1<br>1598:4<br>248..1<br>94 | 0.73 | g43253<br>54 | 91 | 4789 | 0.0          | (AF128<br>395)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrov<br>irus-<br>relate<br>d<br>polypr<br>oteins<br>and to<br>CCHC |

|        |               |                           |     |  |  |  |  |  |                            |      |                               |        |             |                             |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|----------------------------|------|-------------------------------|--------|-------------|-----------------------------|---|
| 164663 | ATU026<br>603 | ATL8S2<br>522:4.<br>.501  | nap |  |  |  |  |  | ATL8S2<br>522:14<br>..501  | 0.73 | g46804<br>89                  | 91     | 334         | 1.3e-<br>29                 | zinc<br>finger<br>protein<br>(Pfam:<br>PF0009<br>8,<br>Score=<br>16.3,<br>E=0.05<br>1, E=<br>1)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164664 | ATU026<br>604 | ATL8C2<br>3326:1<br>..905 | nap |  |  |  |  |  | ATL8C2<br>3326:5<br>3..869 | 0.68 | g43097<br>05,<br>g46462<br>24 | 91, 43 | 237,<br>379 | 7.7e-<br>20,<br>2.1e-<br>20 | (AC006<br>266)<br>putati<br>ve<br>Athila<br>-like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC007<br>295)<br>hypoth        |

|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 164665 | ATU026<br>605 | ATL8C4<br>0441:8<br>32..1  | nap |  |  |  |  |  | ATL8C4<br>0441:8<br>32..27      | 0.64 | g33416<br>94 | 91 | 487  | 1.9e-<br>50  | (AC003<br>672)<br>PREG-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 164666 | ATU026<br>606 | ATL8C7<br>264:21<br>0..706 | nap |  |  |  |  |  | ATL8C7<br>264:21<br>0..425      | 0.64 | g40564<br>92 | 91 | 200  | 4.2e-<br>20  | (AC005<br>896)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164667 | ATU026<br>607 | ATL8C1<br>9236:5<br>325..1 | nap |  |  |  |  |  | ATL8C1<br>9236:5<br>325..1<br>7 | 0.63 | g42204<br>56 | 91 | 1926 | 1.1e-<br>187 | (AC006<br>216)<br>Strong<br>simila<br>rity<br>to<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164668 | ATU026<br>608 | ATL8C4<br>919:24<br>5..115 | nap |  |  |  |  |  | ATL8C4<br>919:50<br>3..107      | 0.60 | g43888<br>23 | 91 | 632  | 3.4e-<br>57  | (AC006<br>528)<br>hypoth   |



|        |               | 1                          |     |  |  |  | 4                                |       |              |        |       |              |  |  |  |  |  | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|-------|--------------|--------|-------|--------------|--|--|--|--|--|--|
| 164669 | ATU026<br>609 | ATL8C1<br>6261:1<br>611..1 | nap |  |  |  | ATL8C1<br>6261:1<br>611..2<br>5  | 0.60  | g36953<br>97 | 91     | 1290  | 2.9e-<br>93  | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |  |  |  |  |  |
| 164670 | ATU026<br>610 | ATL8C2<br>3729:2<br>736..1 | nap |  |  |  | ATL8C2<br>3729:2<br>469..1<br>04 | 0.58  | g46462<br>32 | 91     | 2893  | 1.2e-<br>300 | (AC007<br>266)<br>putati<br>ve<br>ligand<br>-gated<br>ion<br>channe<br>l<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |  |  |  |  |
| 164671 | ATU026<br>611 | ATL8C8<br>589:14<br>34..1  | nap |  |  |  | ATL8C8<br>589:14<br>34..50<br>8  | 0.58  | g13635<br>28 | 91     | 1357  | 3.3e-<br>120 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]   |  |  |  |  |  |
| 164672 | ATU026        | ATL8C2                     | nap |  |  |  | ATL8C2                           | 0.57, | g40380       | 91, 50 | 2208, | 1.3e-        | (AC005   |  |  |  |  |  |

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|--------|---------------|----------------------------------|-----|--|--|--|---|------|-------------------------------|--------------|------------------------------|---|
| 164673 | ATU026<br>613 | ATL8C3<br>2432:1<br>507..1<br>63 | nap |  |  |  | 4200:4<br>7..204<br>5,<br>ATL8C2<br>4200:2<br>550..2<br>251 | 0.98 | 50,<br>g40380<br>53           | 444          | 226,<br>3.0e-<br>38          | 897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164674 | ATU026<br>614 | ATL8C6<br>800:20<br>31..1        | nap |  |  |  | ATL8C6<br>800:18<br>16..22<br>6                             | 0.53 | g41853<br>10,<br>g41853<br>09 | 2252,<br>601 | 8.7e-<br>198,<br>2.7e-<br>52 | (AF090<br>446)<br>gag<br>protei<br>n<br>[Zea<br>mays];<br>(AF090  |

|        |               |                                   |     |  |  |  |  |  |  |                                   |      |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|------|--|--------------|----|------|--------------|---|
| 164675 | ATU026<br>615 | ATL8C9<br>815:85<br>4..1          | nap |  |  |  |  |  |  | ATL8C9<br>815:85<br>4..37         | 0.52 |  | g49143<br>63 | 91 | 734  | 1.6e-<br>51  | 446)<br>unknown<br>[Zea<br>mays]<br>(AC007<br>289)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 164676 | ATU026<br>616 | ATL8C2<br>1171:1<br>874..1        | nap |  |  |  |  |  |  | ATL8C2<br>1171:1<br>802..9<br>27  | 0.51 |  | g42635<br>49 | 91 | 1861 | 4.6e-<br>196 | (AC006<br>250)<br>putati<br>ve<br>En/Spm<br>transp<br>oson<br>hypoth<br>etical<br>protein<br>n 1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164677 | ATU026<br>617 | ATL8C1<br>4049:4<br>924..6<br>928 | nap |  |  |  |  |  |  | ATL8C1<br>4049:5<br>794..6<br>839 | 0.50 |  | g27087<br>42 | 91 | 653  | 2.9e-<br>64  | (AC003<br>952)<br>putati<br>ve<br>zinc-<br>finger<br>protein<br>n<br>[Arabi<br>dopsis   |

|        |               |                                   |     |  |  |  |  |                                   |      |  |                               |        |               |                               |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--|-------------------------------|--------|---------------|-------------------------------|---|
| 164678 | ATU026<br>618 | ATL8C4<br>2006:1<br>943..5<br>151 | nap |  |  |  |  | ATL8C4<br>2006:1<br>943..5<br>151 | 0.49 |  | g37383<br>35                  | 91     | 834           | 9.9e-<br>91                   | thalia<br>na]<br>(AC005<br>170)<br>unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164679 | ATU026<br>619 | ATL8C9<br>485:1.<br>.4885         | nap |  |  |  |  | ATL8C9<br>485:97<br>..4885        | 0.47 |  | g42062<br>02,<br>g42062<br>01 | 91, 84 | 1219,<br>1611 | 7.4e-<br>120,<br>7.4e-<br>179 | (AF071<br>527)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF071<br>527)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164680 | ATU026<br>620 | ATL8S3<br>0334:5<br>57..30        | nap |  |  |  |  |                                   |      |  | g22810<br>97                  | 91     | 855           | 3.8e-<br>73                   | (AC002<br>333)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>na]  |

|        |               |                                    |     |  |  |  |  |  |  |  |  |              |    |     |             |   |
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| 164681 | ATU026<br>621 | ATL8C2<br>2368:4<br>341...3<br>874 | nap |  |  |  |  |  |  |  |  | g45586<br>84 | 91 | 461 | 1.4e-<br>25 | thalia<br>na]<br>(AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164682 | ATU026<br>622 | ATL8S1<br>0076:5<br>11...30<br>8   | nap |  |  |  |  |  |  |  |  | g21301<br>58 | 91 | 173 | 5.0e-<br>12 | hypoth<br>etical<br>protei<br>n 75 -<br>maize<br>chloro<br>plast<br>[Zea<br>mays]                       |
| 164683 | ATU026<br>623 | ATL8C1<br>5971:2<br>116...1<br>09  | nap |  |  |  |  |  |  |  |  | g27087<br>42 | 91 | 630 | 3.0e-<br>53 | (AC003<br>952)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164684 | ATU026<br>624 | ATL8C1<br>0995:1<br>756...8<br>8   | nap |  |  |  |  |  |  |  |  | g45860<br>36 | 91 | 756 | 4.6e-<br>75 | (AC007<br>109)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi   |



|        |               |                                 |     |  |  |  |  |  |  |  |              |    |     |             |  |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|--|
| 164688 | ATU026<br>628 | ATL8C4<br>1058:1<br>..840       | nap |  |  |  |  |  |  |  | g47739<br>11 | 91 | 825 | 2.3e-<br>82 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] | 918)<br>putati<br>ve pol<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 164689 | ATU026<br>629 | ATL8C2<br>3669:7<br>79..34<br>5 | nap |  |  |  |  |  |  |  | g44172<br>75 | 91 | 352 | 6.8e-<br>35 | (AC007<br>019)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]           | (AC007<br>019)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164690 | ATU026<br>630 | ATL8C1<br>6260:9<br>14..1       | nap |  |  |  |  |  |  |  | g44067<br>66 | 91 | 806 | 4.1e-<br>77 | (AC006<br>836)<br>putati<br>ve<br>flavon<br>ol<br>sulfot<br>ransfe<br>rase<br>[Arabi         | (AC006<br>836)<br>putati<br>ve<br>flavon<br>ol<br>sulfot<br>ransfe<br>rase<br>[Arabi |

|        |               |                            |     |  |  |  |  |  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|------|--------------|----|------|--------------|--|
| 164691 | ATU026<br>631 | ATL8C3<br>6551:2<br>090..1 | nap |  |  |  |  |  |      | 932427<br>13 | 91 | 1258 | 1.6e-<br>117 | dopsis<br>thalia<br>nal<br>(AC003<br>040)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164692 | ATU026<br>632 | ATL8S3<br>0795:1<br>..333  | nap |  |  |  |  |  |      | 934028<br>17 | 91 | 162  | 5.4e-<br>14  | (AJ007<br>829)<br>lacZ,<br>[Cloni<br>ng<br>vector<br>pGreen<br>]   |
| 164693 | ATU026<br>633 | ATL8S1<br>7523:1<br>4..723 | nap |  |  |  |  |  | 0.97 | 939159<br>72 | 90 | 310  | 6.1e-<br>23  | HYPOTH<br>ETICAL<br>ABC<br>TRANSP<br>ORTER<br>PERMEA<br>SE<br>PROTEI<br>N YCBM<br>[Esche<br>richia<br>coli]        |
| 164694 | ATU026<br>634 | ATL8C4<br>9631:1<br>..445  | nap |  |  |  |  |  | 0.97 | 917811<br>61 | 90 | 175  | 6.1e-<br>12  | (Z8386<br>6)<br>nrdH<br>[Mycob<br>acteri<br>um<br>tuberc   |



|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 164695 | ATU026<br>635 | ATL8S1<br>9438:1<br>2..552      | nap |  |  |  |  | ATL8S1<br>9438:6<br>0..485       | 0.96 | g45844<br>97 | 90 | 198  | 4.7e-<br>22  | ulosis<br>[AL049<br>587)<br>putati<br>ve IPP<br>isomer<br>ase<br>[Strep<br>tomyce<br>s<br>coelic<br>olor] |
| 164696 | ATU026<br>636 | ATL8S6<br>099:57<br>8..1        | nap |  |  |  |  | ATL8S6<br>099:40<br>2..8         | 0.94 | g29829<br>81 | 90 | 274  | 2.5e-<br>19  | (AE000<br>682)<br>endonu<br>clease<br>III<br>[Aquif<br>ex<br>aeolic<br>us]                                |
| 164697 | ATU026<br>637 | ATL8C3<br>62:636<br>2..450<br>5 | nap |  |  |  |  | ATL8C3<br>62:610<br>3..452<br>3  | 0.90 | g45875<br>18 | 90 | 1311 | 2.2e-<br>133 | (AC007<br>060)<br>Strong<br>simila<br>rity<br>to<br>F19I3.<br>8 [ ]                                       |
| 164698 | ATU026<br>638 | ATL8C1<br>5789:8<br>..1982      | nap |  |  |  |  | ATL8C1<br>5789:9<br>36..19<br>82 | 0.88 | g18774<br>80 | 90 | 786  | 4.2e-<br>75  | (U8927<br>0)<br>short-<br>chain<br>alcohol<br>dehydr<br>ogenase<br>[Trips                                 |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 164699 | ATU026<br>639 | ATL8C3<br>3982:1<br>272..1       | nap |  |  |  |  | ATL8C3<br>3982:1<br>168..1<br>73 | 0.87 | g44553<br>05 | 90 | 1082 |              | acum<br>dactyl<br>oides]  |
| 164700 | ATU026<br>640 | ATL8C4<br>042:23<br>90..17<br>58 | nap |  |  |  |  | ATL8C4<br>042:22<br>78..17<br>58 | 0.86 | g33778<br>46 | 90 | 497  | 8.0e-<br>49  | (AL035<br>528)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 164701 | ATU026<br>641 | ATL8C4<br>6205:1<br>2..993       | nap |  |  |  |  | ATL8C4<br>6205:1<br>2..959       | 0.86 | g26186<br>94 | 90 | 1135 | 2.0e-<br>104 | (AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164702 | ATU026<br>642 | ATL8C1<br>7104:3<br>019..1       | nap |  |  |  |  | ATL8C1<br>7104:2<br>717..1       | 0.85 | g23426<br>90 | 90 | 2367 | 1.4e-<br>215 | (AC000<br>106)<br>Simila  |

|        |               |                                  |     |  |  |  |  |  |  |                                   |  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|--|------|--------------|----|------|--------------|--|
| 164703 | ATU026<br>643 | ATL8C3<br>4996:1<br>413..7<br>8  | nap |  |  |  |  |  |  | 53                                |  | 0.82 | g36430<br>85 | 90 | 974  | 2.0e-<br>102 | r to<br>Homo<br>copine<br>I<br>(gb U8<br>3246).<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
|        |               |                                  |     |  |  |  |  |  |  | ATL8C3<br>4996:1<br>413..1<br>71  |  |      |              |    |      |              | (AF075<br>580)<br>protei<br>n<br>phosph<br>atase-<br>2C;<br>PP2C<br>[Mesem<br>bryant<br>hemum<br>crysta<br>llinum<br>] |
| 164704 | ATU026<br>644 | ATL8C2<br>7609:3<br>052..7<br>78 | nap |  |  |  |  |  |  | ATL8C2<br>7609:2<br>508..7<br>78  |  | 0.79 | g46801<br>80 | 90 | 2081 |              | (AF111<br>709)<br>polypr<br>otein<br>[Oryza<br>sativa<br>subsp.<br>indica<br>]   |
| 164705 | ATU026<br>645 | ATL8C3<br>6620:8<br>85..53<br>63 | nap |  |  |  |  |  |  | ATL8C3<br>6620:1<br>421..4<br>291 |  | 0.76 | g25650<br>11 | 90 | 1049 | 1.5e-<br>88  | (AC002<br>983)<br>putati<br>ve<br>MuDR-<br>A-like<br>transp  |

|        |               |                            |     |  |  |  |  |  |  |      |  |                               |        |               |                               |   |
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| 164706 | ATU026<br>646 | ATL8C4<br>7092:4<br>128..1 | nap |  |  |  |  |  |  | 0.73 |  | g40068<br>33,<br>g49143<br>18 | 90, 87 | 1785,<br>2409 | 1.6e-<br>187,<br>4.5e-<br>255 | oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164707 | ATU026<br>647 | ATL8C4<br>0270:1<br>..1470 | nap |  |  |  |  |  |  | 0.70 |  | g47739<br>18                  | 90     | 1253          | 2.3e-<br>131                  | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164708 | ATU026        | ATL8C1                     | nap |  |  |  |  |  |  | 0.69 |  | g28298                        | 90     | 310           | 5.1e-                         | (AC002<br>970)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>489)<br>F14N23<br>.4<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 648    | 4767:1<br>0581..<br>11154 |     |  |  | 4767:1<br>0605..<br>11121         | 99   |              |    |     | 16          | 311)<br>simila<br>r to<br>ripeni<br>ng-<br>induce<br>d protei<br>n,<br>gp AJ0<br>01449 <br>246501<br>5 and<br>major#<br>latex<br>protei<br>n,<br>gp X91<br>961 11<br>07495<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164709 | ATU026<br>649             | nap |  |  | ATL8C5<br>0114:1<br>535..2<br>816 | 0.69 | g47339<br>85 | 90 | 427 | 1.2e-<br>39 | (AC007<br>209)<br>hypoth<br>etical<br>protei<br>n, 5,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164710 | ATU026<br>650             | nap |  |  | ATL8C4<br>592:19<br>32..34<br>0   | 0.68 | g33554<br>80 | 90 | 379 | 1.5e-<br>20 | (AC004<br>218)<br>Medica<br>go  |

|        |               |                                 |     |  |  |  |  |  |   |                        |              |    |      |         |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|---|------------------------|--------------|----|------|---------|--|
| 164711 | ATU026<br>651 | ATL8C3<br>2200:3<br>416..1      | nap |  |  |  |  |  | ATL8C3<br>2200:1<br>074..7<br>1,<br>ATL8C3<br>2200:2<br>329..1<br>622,<br>ATL8C3<br>2200:3<br>416..2<br>717 | 0.57,<br>0.90,<br>0.94 | g44328<br>02 | 90 | 3326 | 0.0     | nodulin N21-like protein [Arabidopsis thaliana] (AC006437) putative polyprotein, 5, partial [Arabidopsis thaliana] |
| 164712 | ATU026<br>652 | ATL8S7<br>730:1.<br>.369        | nap |  |  |  |  |  | ATL8S7<br>730:17<br>..369   | 0.57                   | g14050<br>3  | 90 | 124  | 1.5e-05 | HYPOTHETICAL 14 KD PROTEIN IN TRN1 INTRON (ORF 133) [Oryza sativa]   |
| 164713 | ATU026<br>653 | ATL8C2<br>7346:1<br>53..51<br>7 | nap |  |  |  |  |  | ATL8C2<br>7346:1<br>71..46<br>8   | 0.57                   | g19033<br>58 | 90 | 259  |         | (AC000104) Similar to Nicotiana  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |  |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--|--------------|----|------|--------------|--|
| 164714 | ATU026<br>654 | ATL8C2<br>9293:2<br>220..2<br>87 | nap |  |  |  |  |  | ATL8C2<br>9293:2<br>163..2<br>87 | 0.56 |  | g49268<br>66 | 90 | 1212 | 3.1e-<br>122 | EREBP-<br>3<br>(gb D3<br>8124).<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 164715 | ATU026<br>655 | ATL8C3<br>4368:1<br>73..14<br>44 | nap |  |  |  |  |  | ATL8C3<br>4368:1<br>73..13<br>82 | 0.52 |  | g31766<br>92 | 90 | 1263 | 1.6e-<br>130 | (AC003<br>671)<br>F1707.<br>2<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 164716 | ATU026<br>656 | ATL8C2<br>615:20<br>04..1        | nap |  |  |  |  |  | ATL8C2<br>615:20<br>04..14<br>7  | 0.51 |  | g44067<br>53 | 90 | 650  | 4.6e-<br>60  | (AC006<br>836)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164717 | ATU026        | ATL8C4                           | nap |  |  |  |  |  | ATL8C4                           | 0.50 |  | g36458       | 90 | 4517 | 0.0          | (U6840   |

|        |     |                  |  |  |  |  |                                  |      |              |    |     |             |  |
|--------|-----|------------------|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 164718 | 657 | 4957:2<br>880..1 |  |  |  |  | 4957:2<br>874..1<br>17           | 0.49 | g32490<br>83 | 90 | 376 | 6.le-<br>44 | 8) 5'<br>end<br>not<br>determ<br>ined<br>experi<br>mental<br>ly [Zea<br>mays]  |
|        |     |                  |  |  |  |  | ATL8C4<br>8290:2<br>17..13<br>83 |      |              |    |     |             | (AC004<br>473)<br>Contai<br>ns<br>simila<br>rity<br>to<br>heat<br>shock<br>transc<br>riptio<br>n<br>factor<br>homolo<br>g<br>gb 224<br>4754<br>from<br>A.<br>thalia<br>na<br>chromo<br>some 4<br>contig<br>gb Z97<br>335.<br>[Arabi<br>dopsis<br>thalia<br>na] |



|        |               |                                  |     |  |  |  |                                 |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 164719 | ATU026<br>659 | ATL8S1<br>5192:5<br>95..15<br>4  | nap |  |  |  | ATL8S1<br>5192:5<br>14..15<br>4 | 0.47 | g11734<br>60 | 90 | 315  | 9.6e-<br>29  | SMALL<br>PROTEI<br>N B<br>HOMOLO<br>G<br>[Strep<br>tococc<br>us<br>faecal<br>is]   |
| 164720 | ATU026<br>660 | ATL8C2<br>8269:9<br>11..1        | nap |  |  |  | ATL8C2<br>8269:8<br>66..64      | 0.40 | g30566<br>01 | 90 | 1115 | 8.8e-<br>103 | (AC004<br>255)<br>T1F9.2<br>2<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164721 | ATU026<br>661 | ATL8C4<br>1254:6<br>63..1        | nap |  |  |  |                                 |      | g38855<br>11 | 90 | 99   | 3.5e-<br>05  | (AF084<br>200)<br>simila<br>r to<br>PSI-K<br>subuni<br>t of<br>photos<br>ystem<br>I from<br>barley<br>[Medic<br>ago<br>sativa<br>] |
| 164722 | ATU026<br>662 | ATL8C3<br>9590:3<br>16..48<br>47 | nap |  |  |  |                                 |      | g44328<br>07 | 90 | 2890 | 0.0          | (AC006<br>570)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi  |

|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 164723 | ATU026<br>663 | ATL8C1<br>3839:2<br>108..3<br>52 | nap |  |  |  |  |  |  |  |  |  | g44328<br>67 | 90 | 2825 | 2.8e-<br>286 | dopsis<br>thalia<br>na]<br>(AC006<br>300)<br>putati<br>ve<br>dnaJ-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164724 | ATU026<br>664 | ATL8C3<br>3361:1<br>193..1       | nap |  |  |  |  |  |  |  |  |  | g26186<br>92 | 90 | 1053 | 1.2e-<br>110 | (AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 164725 | ATU026<br>665 | ATL8S8<br>030:38<br>9..1         | nap |  |  |  |  |  |  |  |  |  | g50102<br>7  | 90 | 104  | 0.995        | (U0184<br>9)<br>ORF2<br>[Trypa<br>nosoma<br>brucei<br>]  |
| 164726 | ATU026<br>666 | ATL8C4<br>2547:9<br>68..1        | nap |  |  |  |  |  |  |  |  |  | g33373<br>59 | 90 | 667  | 2.1e-<br>79  | (AC004<br>481)<br>hypoth<br>etical<br>protei<br>n  |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 164727 | ATU026<br>667 | ATL8C2<br>7252:8<br>80..1       | nap |  |  |  |  |  |  |  |  |  | g48862<br>71 | 90 | 450  |              | [Arabi<br>dopsis<br>thalia<br>na]  |
| 164728 | ATU026<br>668 | ATL8S1<br>8375:5<br>2..537      | nap |  |  |  |  |  |  |  |  |  | g11685<br>15 | 90 | 377  | 1.3e-<br>26  | (AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164729 | ATU026<br>669 | ATL8C3<br>4802:7<br>40..32<br>2 | nap |  |  |  |  |  |  |  |  |  | g17105<br>16 | 90 | 198  | 1.8e-<br>09  | SHIKIM<br>ATE<br>KINASE<br>(SK)<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd]       |
| 164730 | ATU026<br>670 | ATL8C1<br>288:1.<br>.1310       | nap |  |  |  |  |  |  |  |  |  | g41917<br>74 | 90 | 1134 | 1.9e-<br>119 | 60S<br>RIBOSO<br>MAL<br>PROTEI<br>N I22<br>[Gadus<br>morhua<br>]                   |
|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |      |              | (AC005<br>917)<br>putati<br>ve<br>beta-<br>1,3-<br>endogl<br>ucanas<br>e           |

|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|-------------|---|
| 164731 | ATU026<br>671 | ATL8C3<br>314:48<br>82..42<br>74 | nap |  |  |  |  |  |  |  |  |  | g40380<br>66 | 90 | 554  | 7.4e-<br>34 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164732 | ATU026<br>672 | ATL8C3<br>7490:1<br>220..1       | nap |  |  |  |  |  |  |  |  |  | g43357<br>18 | 90 | 1234 |             | (AC006<br>248)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 164733 | ATU026<br>673 | ATL8S1<br>8656:4<br>82..1        | nap |  |  |  |  |  |  |  |  |  | g32566<br>44 | 90 | 94   | 7.5e-<br>08 | (AP000<br>001)<br>175aa<br>long<br>hypoth<br>etical<br>protei<br>n<br>[Pyroc<br>occus<br>horiko<br>shii]                    |
| 164734 | ATU026<br>674 | ATL8C1<br>6198:9                 | nap |  |  |  |  |  |  |  |  |  | g30803<br>59 | 90 | 71   | 0.0005<br>0 | (AL022<br>580)  |

|        |               |                           |     |  |  |  |  |  |  |  |  |  |              |    |      |     |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|-----|--|
| 164735 | ATU026<br>675 | 85..66<br>6               | nap |  |  |  |  |  |  |  |  |  | g33193<br>72 | 90 | 3649 | 0.0 | hypothetical protein [Arabidopsis thaliana] (AF077409) similar to reverse transcriptases (PFam: rvt.hm, score: 60.13) [Arabidopsis thaliana] |
| 164736 | ATU026<br>676 | ATL8S1<br>6989:4<br>61..1 | nap |  |  |  |  |  |  |  |  |  | g17033<br>39 | 90 | 279  |     | BIS(5' - NUCLEOSYL) - TETRAPHOSPHATASE (ASYMMETRICAL) (DIADENOSINE 5',5'-  |



|        |                 |                            |     |  |  |  |  |  |              |    |      |              |   |
|--------|-----------------|----------------------------|-----|--|--|--|--|--|--------------|----|------|--------------|---|
| 679    | 0069:1<br>..878 |                            |     |  |  |  |  |  | 07           |    |      | 92           | 134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 164740 | ATU026<br>680   | ATL8S1<br>5487:1<br>..324  | nap |  |  |  |  |  | g77341<br>4  | 90 | 174  | 5.3e-<br>15  | (U2375<br>1)<br>beta<br>galact<br>osidas<br>e<br>[Cloni<br>ng<br>vector<br>pBBR1M<br>CS-5]                            |
| 164741 | ATU026<br>681   | ATL8C2<br>0682:2<br>523..1 | nap |  |  |  |  |  | g47738<br>88 | 89 | 2597 | 3.7e-<br>269 | (AF076<br>243)<br>putati<br>ve<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164742 | ATU026<br>682   | ATL8C1<br>367:1.<br>.1058  | nap |  |  |  |  |  | g42622<br>13 | 89 | 1057 | 5.7e-<br>109 | (AC006<br>161)<br>hypoth  |

|        |               |                                  |     |  |  |  |  |  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|------|--------------|----|-----|-------------|---|
| 164743 | ATU026<br>683 | ATL8C2<br>6275:3<br>572..6<br>46 | nap |  |  |  |  |  | 0.97 | g48357<br>67 | 89 | 549 | 6.9e-<br>59 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>202)<br>T8K14.<br>16<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164744 | ATU026<br>684 | ATL8C2<br>3164:1<br>98..87<br>2  | nap |  |  |  |  |  | 0.96 | g31282<br>22 | 89 | 181 | 1.4e-<br>14 | (AC004<br>077)<br>MADS<br>Box<br>protei<br>n<br>AGL29<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164745 | ATU026<br>685 | ATL8C1<br>647:21<br>5..139<br>5  | nap |  |  |  |  |  | 0.96 | g38926<br>99 | 89 | 107 | 5.9e-<br>21 | (AL033<br>545)<br>hypoth<br>etical<br>protei<br>n<br>(fragm<br>ent)<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 164746 | ATU026<br>686 | ATL8C4<br>9175:1                 | nap |  |  |  |  |  | 0.92 | g48369<br>51 | 89 | 128 | 1.1e-<br>07 | (AC006<br>085)  |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164747 | ATU026<br>687 | ..375                            | nap |  |  |  | 9..375                           | 0.92 | g32928<br>49 | 89 | 162  | 1.8e-<br>13  | Hypothetical protein [Arabidopsis thaliana] (AJ007582) arginine methyltransferase [Arabidopsis thaliana] (U12757) diphenol oxidase [Acer pseudoplatanus] (AL049500) putative protein [Arabidopsis thaliana] (AC005 |
| 164748 | ATU026<br>688 | ATL8C3<br>4937:1<br>..2916       | nap |  |  |  | ATL8C3<br>4937:1<br>28..29<br>16 | 0.91 | g52935<br>3  | 89 | 1122 | 3.0e-<br>107 |  |
| 164749 | ATU026<br>689 | ATL8C2<br>6519:5<br>21..23<br>88 | nap |  |  |  | ATL8C2<br>6519:5<br>21..23<br>36 | 0.88 | g45394<br>60 | 89 | 460  | 1.3e-<br>45  |  |
| 164750 | ATU026        | ATL8C7                           | nap |  |  |  | ATL8C7                           | 0.86 | g40564       | 89 | 1030 | 2.6e-        |  |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 164751 | 690           | 17:151<br>6..1                    | nap |  |  |  |  | 17:133<br>0..569                  | 0.86 | g15725<br>64 | 89 | 591  | 116          | 990)<br>Simila<br>r to<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
|        | ATU026<br>691 | ATL8S2<br>2741:4<br>58..1         | nap |  |  |  |  | ATL8S2<br>2741:4<br>58..11<br>9   |      |              |    |      | 2.0e-<br>59  | (U6719<br>4)<br>Upf31.<br>0<br>[Enter<br>obacte<br>r<br>aeroge<br>nes]                 |
| 164752 | ATU026<br>692 | ATL8C1<br>3534:4<br>610..7<br>719 | nap |  |  |  |  | ATL8C1<br>3534:4<br>610..6<br>612 | 0.81 | g39012<br>68 | 89 | 659  | 1.1e-<br>40  | (AF060<br>173)<br>SV2<br>relate<br>d<br>protei<br>n<br>[Rattu<br>s<br>norveg<br>icus]  |
| 164753 | ATU026<br>693 | ATL8C3<br>654:37<br>9..250<br>9   | nap |  |  |  |  | ATL8C3<br>654:43<br>2..247<br>3   | 0.81 | g42630<br>63 | 89 | 2283 | 4.2e-<br>179 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164754 | ATU026<br>694 | ATL8C4<br>1994:8<br>9..382        | nap |  |  |  |  | ATL8C4<br>1994:8<br>9..252        | 0.77 | g48369<br>29 | 89 | 1566 | 1.2e-<br>111 | (AC006<br>085)<br>Hypoth   |

|        |               |                                   |     |  |  |  |  |  |  |                                   |  |      |  |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|--|------|--|--------------|----|-----|-------------|--|
| 164755 | ATU026<br>695 | 1                                 |     |  |  |  |  |  |  | 5                                 |  | 0.77 |  | g30333<br>86 | 89 | 452 | 2.9e-<br>41 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
|        |               | ATL8C1<br>9035:4<br>199..2<br>315 | nap |  |  |  |  |  |  | ATL8C1<br>9035:4<br>199..2<br>315 |  |      |  |              |    |     |             | (AC004<br>238)<br>RING3-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 164756 | ATU026<br>696 | ATL8C2<br>842:59<br>2..1          | nap |  |  |  |  |  |  | ATL8C2<br>842:58<br>3..36         |  | 0.77 |  | g44552<br>07 | 89 | 102 | 0.0002<br>3 | (AL035<br>440)<br>ubiqui<br>tin-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164757 | ATU026<br>697 | ATL8S1<br>1612:2<br>20..1         | nap |  |  |  |  |  |  | ATL8S1<br>1612:2<br>20..11        |  | 0.76 |  | g22931<br>55 | 89 | 201 | 1.3e-<br>15 | (AF008<br>220)<br>Ytia<br>[Bacil<br>lus<br>subtil<br>is]                                     |
| 164758 | ATU026<br>698 | ATL8C2<br>0545:1<br>366..1        | nap |  |  |  |  |  |  | ATL8C2<br>0545:1<br>171..2<br>44  |  | 0.76 |  | g20519<br>79 | 89 | 171 | 2.7e-<br>06 | (U9449<br>4)<br>teosin<br>te<br>branch   |

[illegible]

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164759 | ATU026<br>699 | ATL8C1<br>270:14<br>32..1        | nap |  |  |  | ATL8C1<br>270:14<br>32..25<br>3  | 0.75 | g47738<br>99 | 89 | 787  | 2.0e-<br>73  | edl<br>protei<br>n [Zea<br>mays]<br>(AF074<br>021)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]          |
| 164760 | ATU026<br>700 | ATL8C3<br>1692:1<br>096..1       | nap |  |  |  | ATL8C3<br>1692:1<br>096..5       | 0.75 | g43357<br>30 | 89 | 1448 | 4.8e-<br>149 | (AC006<br>248)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]  |
| 164761 | ATU026<br>701 | ATL8C3<br>2730:2<br>365..4<br>48 | nap |  |  |  | ATL8C3<br>2730:2<br>229..4<br>48 | 0.73 | g40493<br>49 | 89 | 372  | 1.8e-<br>10  | (AL034<br>567)<br>ubiqui<br>inol-<br>cytoch<br>rome c<br>reduct<br>ase-<br>like<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                 |     |  |  |  |   |               |                               |        |               |                               |   |
|--------|---------------|---------------------------------|-----|--|--|--|---|---------------|-------------------------------|--------|---------------|-------------------------------|---|
| 164762 | ATU026<br>702 | ATL8C4<br>4795:1<br>2075..<br>1 | nap |  |  |  | ATL8C4<br>4795:8<br>644..2<br>96,<br>ATL8C4<br>4795:1<br>2075..<br>9216 | 0.72,<br>0.81 | g44327<br>97,<br>g42635<br>44 | 89, 30 | 2692,<br>1547 | 1.7e-<br>228,<br>1.8e-<br>154 | (AC006<br>437)<br>putati<br>ve pol<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>250)<br>putati<br>ve<br>Athila<br>retroo<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164763 | ATU026<br>703 | ATL8S2<br>1529:3<br>75..1       | nap |  |  |  | ATL8S2<br>1529:3<br>75..43  | 0.70          | g45123<br>55                  | 89     | 101           | 2.2e-<br>08                   | (AB011<br>836)<br>simila<br>r to<br>B.subt<br>ilis<br>ywgB<br>gene (2<br>7%-<br>identi<br>ty)<br>[Bacil<br>lus<br>halodu<br>rans]   |
| 164764 | ATU026        | ATL8C3                          | nap |  |  |  | ATL8C3  | 0.67          | g15183                        | 89     | 209           | 2.6e-                         | (Z7072  |

|        |               |                                  |     |  |  |  |                                  |      |                               |        |              |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|-------------------------------|--------|--------------|-------------|---|
| 164765 | 704           | 8829:1<br>..588                  |     |  |  |  | 8829:8<br>0..518                 | 95   |                               |        |              | 16          | 4)<br>ORF2<br>[Strep<br>tomyce<br>s<br>livida<br>ns]  |
| 164766 | ATU026<br>705 | ATL8C1<br>0351:1<br>..4697       | nap |  |  |  | ATL8C1<br>0351:7<br>79..32<br>46 | 0.67 | g46801<br>80,<br>g44327<br>97 | 89, 77 | 900,<br>2740 |             | (AF111<br>709)<br>polypr<br>otein<br>[Oryza<br>sativa<br>subsp.<br>indica<br>];<br>(AC006<br>437)<br>putati<br>ve pol<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164767 | ATU026<br>706 | ATL8C1<br>1709:4<br>87..1        | nap |  |  |  | ATL8C1<br>1709:4<br>87..13<br>8  | 0.67 | g28424<br>83                  | 89     | 583          | 4.8e-<br>59 | (AL021<br>749)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164768 | ATU026<br>707 | ATL8C4<br>2448:2<br>226..7<br>27 | nap |  |  |  | ATL8C4<br>2448:2<br>075..7<br>52 | 0.66 | g28326<br>36                  | 89     | 727          | 4.8e-<br>86 | (AL021<br>711)<br>hypoth<br>etical  |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |     |             |   |
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| 164768 | ATU026<br>708 | ATL8S9<br>947:43<br>1..1   | nap |  |  |  |  | ATL8S9<br>947:43<br>1..36        | 0.63 | g25982<br>23 | 89 | 272 | 3.4e-<br>26 | (Y0869<br>6)<br>aldehy<br>dehydr<br>ogenase<br>subunit<br>III<br>[Acetobacter<br>europa<br>eus] |
| 164769 | ATU026<br>709 | ATL8C1<br>0239:8<br>70..1  | nap |  |  |  |  | ATL8C1<br>0239:8<br>04..17<br>2  | 0.62 | g43371<br>93 | 89 | 487 |             | (AC006<br>403)<br>hypoth<br>etical<br>protein<br>[Arabis<br>dopsis<br>thaliana]                 |
| 164770 | ATU026<br>710 | ATL8C4<br>7227:1<br>..2719 | nap |  |  |  |  | ATL8C4<br>7227:5<br>03..18<br>07 | 0.60 | g37790<br>29 | 89 | 575 | 1.0e-<br>59 | (AC005<br>171)<br>putative<br>zinc<br>finger<br>protein<br>[Arabis<br>dopsis<br>thaliana]       |

|        |               |                                  |     |  |  |  |                                  |      |                               |        |              |                              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 164771 | ATU026<br>711 | ATL8S1<br>6872:1<br>..436        | nap |  |  |  | ATL8S1<br>6872:5<br>8..329       | 0.60 | g32362<br>43                  | 89     | 533          | 5.5e-<br>41                  | na]<br>(AC004<br>684)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164772 | ATU026<br>712 | ATL8C4<br>0576:4<br>310..2<br>11 | nap |  |  |  | ATL8C4<br>0576:4<br>139..2<br>11 | 0.59 | g47739<br>20,<br>g43097<br>68 | 89, 32 | 2725,<br>337 | 1.5e-<br>260,<br>1.3e-<br>05 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>217)<br>putati<br>ve<br>Athila<br>retroee<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164773 | ATU026<br>713 | ATL8C4<br>76:405<br>3..227<br>2  | nap |  |  |  | ATL8C4<br>76:373<br>2..227<br>5  | 0.58 | g24941<br>13                  | 89     | 1516         | 1.9e-<br>149                 | (AC002<br>376)<br>Strong<br>simila   |







|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164778 | ATU026<br>718 | ATL8C1<br>415:68<br>53..15<br>98 | nap |  |  |  | ATL8C1<br>415:67<br>91..17<br>15 | 0.45 | g45443<br>72 | 89 | 4758 | 0.0          | na]<br>(AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164779 | ATU026<br>719 | ATL8C4<br>595:17<br>30..63       | nap |  |  |  | ATL8C4<br>595:13<br>46..63       | 0.44 | g31842<br>79 | 89 | 2313 | 3.9e-<br>236 | (AC004<br>136)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 164780 | ATU026<br>720 | ATL8C2<br>307:11<br>75..15<br>59 | nap |  |  |  |                                  |      | g28326<br>73 | 89 | 126  | 4.5e-<br>13  | (AL021<br>712)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 164781 | ATU026<br>721 | ATL8S1<br>0786:1<br>..373        | nap |  |  |  |                                  |      | g50102<br>7  | 89 | 141  | 0.0005<br>5  | (U0184<br>9)<br>ORF2<br>[Trypa<br>nosoma<br>brucei   |

|        |               |                                   |     |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 164782 | ATU026<br>722 | ATL8S1<br>0290:5<br>82..25        | nap |  |  |  |  |  |  | g24988<br>94 | 89 | 253  | 3.1e-<br>21  | PUTATI<br>VE<br>SERINE<br>CYCLE<br>ENZYME<br>(ORF4)<br>[Methy<br>lobact<br>erium<br>extorq<br>uens]  |
| 164783 | ATU026<br>723 | ATL8C4<br>1524:8<br>0..654        | nap |  |  |  |  |  |  | g17551<br>62 | 89 | 587  | 6.3e-<br>58  | (U7519<br>2)<br>germin<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 164784 | ATU026<br>724 | ATL8C2<br>1333:4<br>7..109<br>1   | nap |  |  |  |  |  |  | g45804<br>69 | 89 | 1570 | 1.2e-<br>146 | (AC006<br>081)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164785 | ATU026<br>725 | ATL8C4<br>6029:2<br>400..1<br>602 | nap |  |  |  |  |  |  | g43097<br>03 | 89 | 937  | 5.0e-<br>93  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson   |

|        |               |                                   |     |  |  |  |  |  |  |              |    |      |             |   |
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| 164786 | ATU026<br>726 | ATL8C9<br>357:65<br>28..79<br>3   | nap |  |  |  |  |  |  | g45443<br>72 | 89 | 3782 | 0.0         | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164787 | ATU026<br>727 | ATL8C1<br>6296:1<br>176..2<br>825 | nap |  |  |  |  |  |  | g10022<br>6  | 89 | 824  | 4.3e-<br>88 | hypoth<br>etical<br>protein<br>-<br>tomato<br>[Lycop<br>ersico<br>n<br>escule<br>ntum]  |
| 164788 | ATU026<br>728 | ATL8C1<br>4210:1<br>462..1<br>16  | nap |  |  |  |  |  |  | g17698<br>97 | 89 | 756  | 1.3e-<br>79 | (Y0801<br>0)<br>lectin<br>recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164789 | ATU026        | ATL8C2                            | nap |  |  |  |  |  |  | g45586       | 89 | 130  | 1.3e-       | (AC006  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |    |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|----|---|
|        | 729           | 2781:1<br>..789                   |     |  |  |  |  |  |  |  |  |  | 78           |    |      |              |  | 14 | 586)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164790 | ATU026<br>730 | ATL8C2<br>2404:1<br>958..1<br>057 | nap |  |  |  |  |  |  |  |  |  | g33778<br>53 | 89 | 1155 | 1.1e-<br>109 | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |    |   |
| 164791 | ATU026<br>731 | ATL8C4<br>401:79<br>4..132<br>6   | nap |  |  |  |  |  |  |  |  |  | g31933<br>15 | 89 | 310  | 4.5e-<br>20  | (AF069<br>299)<br>contai<br>ns<br>simila<br>rity<br>to<br>transc<br>riptio<br>nal<br>activa<br>tor Ra<br>[Arabi<br>dopsis<br>thalia<br>na] |    |   |
| 164792 | ATU026<br>732 | ATL8C1<br>3799:1<br>..338         | nap |  |  |  |  |  |  |  |  |  | g22528<br>54 | 89 | 258  | 1.5e-<br>17  | (AF013<br>294)<br>simila<br>r to   |    |   |

|        |               |                                   |     |  |  |  |  |  |  |              |    |      |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|-------------|--|
| 164793 | ATU026<br>733 | ATL8C3<br>4505:7<br>750..2<br>095 | nap |  |  |  |  |  |  | g45443<br>72 | 89 | 3359 | 0.0         | auxin-<br>induced<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 164794 | ATU026<br>734 | ATL8C1<br>8820:6<br>39..10<br>07  | nap |  |  |  |  |  |  | g30972<br>60 | 89 | 94   | 1.1e-<br>07 | (AC006<br>920)<br>putative<br>reverse<br>transcrip<br>tase [Arabi<br>dopsis<br>thalia<br>na] |
| 164795 | ATU026<br>735 | ATL8C2<br>218:11<br>07..54<br>20  | nap |  |  |  |  |  |  | g33193<br>72 | 89 | 3650 | 0.0         | (AF077<br>409)<br>similarity<br>reverse<br>transcrip<br>tase                                 |





|        |               |                                  |     |  |  |  |  |  |      |                              |        |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|------|------------------------------|--------|-------------|--|
| 164799 | ATU026<br>739 | ATL8C4<br>3976:1<br>236..1       | nap |  |  |  |  |  | 0.92 | g36953<br>97                 | 88     | 1371        | found<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164800 | ATU026<br>740 | ATL8C1<br>878:1.<br>.1423        | nap |  |  |  |  |  | 0.92 | g18413<br>99                 | 88     | 232         | (Z3466<br>1)<br>AtTFII<br>B2<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164801 | ATU026<br>741 | ATL8C2<br>7374:2<br>834..5<br>48 | nap |  |  |  |  |  | 0.90 | g31281<br>91                 | 88     | 1248        | (AC004<br>521)<br>putati<br>ve<br>beta-<br>glucos<br>idase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164802 | ATU026<br>742 | ATL8C1<br>8848:1<br>..528        | nap |  |  |  |  |  | 0.89 | g11467<br>9,<br>g11685<br>93 | 88, 48 | 234,<br>191 | ATP<br>SYNTA<br>SE C<br>CHAIN<br>(LIPID  |



|        |               |                                  |     |  |  |  |  |  |      |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|------|--------------|----|------|-------------|--|
| 164805 | ATU026<br>745 | ATL8C4<br>228:15<br>29..1        | nap |  |  |  |  |  | 0.87 | g43371<br>91 | 88 | 1011 | 5.9e-<br>93 | [Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164806 | ATU026<br>746 | ATL8C2<br>2540:4<br>00..18<br>27 | nap |  |  |  |  |  | 0.86 | g38610<br>36 | 88 | 111  | 1.1e-<br>11 | (AJ235<br>272)<br>PUTRES<br>CINE-<br>ORNITH<br>INE<br>ANTIPO<br>RTER<br>(pote)<br>[Ricke<br>ttsia<br>prowaz<br>ekil]                               |



|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 164811 | ATU026<br>751 | ATL8C4<br>7651:6<br>..1265        | nap |  |  |  |  |  | ATL8C4<br>7651:6<br>..1249        | 0.74 | g32362<br>41 | 88 | 454  | 6.9e-<br>29  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC004<br>684)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164812 | ATU026<br>752 | ATL8C3<br>5696:1<br>..3152        | nap |  |  |  |  |  | ATL8C3<br>5696:9<br>6..315<br>2   | 0.73 | g44540<br>11 | 88 | 1848 | 6.9e-<br>161 | (AL035<br>396)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164813 | ATU026<br>753 | ATL8C5<br>6:2391<br>..1           | nap |  |  |  |  |  | ATL8C5<br>6:2077<br>..111         | 0.73 | g45444<br>50 | 88 | 613  | 3.6e-<br>50  | (AC006<br>592)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164814 | ATU026<br>754 | ATL8C4<br>2078:3<br>149..1<br>647 | nap |  |  |  |  |  | ATL8C4<br>2078:2<br>689..1<br>647 | 0.69 | g45876<br>08 | 88 | 294  | 4.7e-<br>28  | (AC006<br>951)<br>putati<br>ve  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |             |  |
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| 164815 | ATU026<br>755 | ATL8C3<br>6585:2<br>882..5<br>56 | nap |  |  |  |  | ATL8C3<br>6585:2<br>815..5<br>56 | 0.65 | g22526<br>30 | 88 | 989  | 4.9e-<br>68 | polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(U9597<br>3)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164816 | ATU026<br>756 | ATL8C1<br>3947:1<br>117..1       | nap |  |  |  |  | ATL8C1<br>3947:8<br>53..35       | 0.62 | g24628<br>29 | 88 | 940  | 2.3e-<br>92 | (AF000<br>657)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164817 | ATU026<br>757 | ATL8C3<br>3831:1<br>..1396       | nap |  |  |  |  | ATL8C3<br>3831:1<br>19..13<br>96 | 0.62 | g39534<br>77 | 88 | 1756 |             | (AC002<br>328)<br>F2202.<br>22<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164818 | ATU026<br>758 | ATL8C4<br>7968:1<br>26..19<br>61 | nap |  |  |  |  | ATL8C4<br>7968:1<br>71..19<br>61 | 0.58 | g48503<br>84 | 88 | 958  | 7.6e-<br>90 | (AC007<br>357)<br>F3F19.<br>3<br>[Arabi  |

|        |               |                           |     |  |  |  |  |                                 |      |                               |        |             |                             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|---------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 164819 | ATU026<br>759 | ATL8S4<br>851:53<br>0..1  | nap |  |  |  |  | ATL8S4<br>851:48<br>0..76       | 0.47 | g28296<br>43                  | 88     | 74          | 0.067                       | dopsis<br>thalia<br>nal<br>HYPOTH<br>ETICAL<br>20.5<br>KD<br>PROTEI<br>N IN<br>XTHA-<br>GDHA<br>INTERG<br>ENIC<br>REGION<br>[Esche<br>richia<br>coli]  |
| 164820 | ATU026<br>760 | ATL8C4<br>411:1.<br>.2779 | nap |  |  |  |  | ATL8C4<br>411:27<br>7..276<br>8 | 0.46 | g41917<br>90,<br>g32506<br>76 | 88, 50 | 632,<br>186 | 9.0e-<br>70,<br>9.9e-<br>17 | (AC005<br>917)<br>putati<br>ve<br>zinc<br>(ring)<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AL024<br>486)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |

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|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|-------------------------------|--------|---------------|-------------------------------|--|
| 164821 | ATU026<br>761 | ATL8C1<br>7788:3<br>292..1 | nap |  |  |  | ATL8C1<br>7788:2<br>890..4<br>2  | 0.46 | g33193<br>67,<br>g14028<br>81 | 88, 66 | 1107,<br>1826 | 1.0e-<br>102,<br>3.5e-<br>180 | (AF077<br>409)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(X9813<br>0)<br>non-<br>ltr<br>retrot<br>ranspo<br>son<br>revers<br>e<br>transc<br>riptas<br>e-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164822 | ATU026<br>762 | ATL8C2<br>4319:1<br>170..1 | nap |  |  |  | ATL8C2<br>4319:1<br>170..1<br>33 | 0.45 | g34452<br>10                  | 88     | 1606          | 9.4e-<br>155                  | (AC004<br>786)<br>putati<br>ve<br>flavon<br>ol 3-<br>o-<br>glucos<br>yltran<br>sferas<br>e   |















|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164842 | ATU026<br>782 | ATL8C1<br>2307:1<br>352..1<br>28 | nap |  |  |  |  | ATL8C1<br>2307:1<br>292..8<br>37 | 0.97 | g16556<br>03 | 87 | 185  | 2.0e-<br>16  | dopsis<br>thalia<br>nal<br>(AC007<br>018)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164843 | ATU026<br>783 | ATL8S1<br>9622:2<br>9..624       | nap |  |  |  |  | ATL8S1<br>9622:2<br>9..562       | 0.97 | g16556<br>53 | 87 | 108  | 3.4e-<br>09  | (Z8136<br>8)<br>hypoth<br>etical<br>protein<br>Rv2406<br>c<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]  |
| 164844 | ATU026<br>784 | ATL8C3<br>9848:5<br>0..241<br>8  | nap |  |  |  |  | ATL8C3<br>9848:5<br>0..234<br>0  | 0.95 | g10764<br>16 | 87 | 2542 | 3.2e-<br>247 | sulfit<br>e<br>reduct<br>ase<br>(ferre<br>doxin)<br>(EC<br>1.8.7.<br>1)<br>precu<br>sor -<br>Arabid<br>opsis   |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|---|
| 164845 | ATU026<br>785 | ATL8C2<br>8312:1<br>..1154      | nap |  |  |  |  | ATL8C2<br>8312:6<br>1..107<br>7 | 0.94 | g20886<br>53 | 87 | 1304 | 6.7e-<br>136 | thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164846 | ATU026<br>786 | ATL8C1<br>432:13<br>18..11<br>3 | nap |  |  |  |  | ATL8C1<br>432:12<br>71..11<br>3 | 0.94 | g40068<br>23 | 87 | 452  | 8.7e-<br>35  | (AF002<br>109)<br>Hslpro<br>-1<br>relate<br>d<br>protei<br>n<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164847 | ATU026<br>787 | ATL8C2<br>2113:8<br>04..1       | nap |  |  |  |  | ATL8C2<br>2113:1<br>38..8       | 0.92 | g11731<br>05 | 87 | 410  | 1.5e-<br>42  | (AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 164848 | ATU026<br>788 | ATL8C1<br>5632:3                | nap |  |  |  |  | ATL8C1<br>5632:3                | 0.92 | g46999<br>42 | 87 | 628  | 6.8e-<br>52  | RIBONU<br>CLEASE<br>3<br>PRECUR<br>SOR<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |              | (AC007<br>166)  |



|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |  |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|--|
| 164849 | ATU026<br>789 | 479..2<br>128              | nap |  |  |  | 315..2<br>128                    | 0.80 | g42630<br>50 | 87 | 334  |              |  | putative<br>receptor<br>protein<br>kinase<br>[Arabi<br>dopsis<br>thaliana] |
| 164850 | ATU026<br>790 | ATL8C2<br>7285:8<br>37..1  | nap |  |  |  | ATL8C2<br>7285:8<br>37..7        | 0.79 | g39351<br>40 | 87 | 128  | 1.8e-<br>09  |  | (AC005<br>142)<br>putative<br>nodulin<br>[Arabi<br>dopsis<br>thaliana]     |
| 164851 | ATU026<br>791 | ATL8C1<br>7730:2<br>513..1 | nap |  |  |  | ATL8C1<br>7730:2<br>431..2<br>57 | 0.78 | g42062<br>02 | 87 | 1103 | 6.9e-<br>110 |  | (AC005<br>106)<br>T25N20<br>.4<br>[Arabi<br>dopsis<br>thaliana]            |
| 164852 | ATU026        | ATL8C8                     | nap |  |  |  | ATL8C8                           | 0.78 | g17105       | 87 | 521  | 7.9e-        |  | (AF071<br>527)<br>hypothetical<br>protein<br>[Arabi<br>dopsis<br>thaliana] |
|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |  | 60S  |

|        |                  |                                   |     |  |                                   |      |    |  |              |  |
|--------|------------------|-----------------------------------|-----|--|-----------------------------------|------|----|--|--------------|--|
| 792    | 916:67<br>4..280 |                                   |     |  | 916:67<br>3..280                  | 30   | 50 | RIBOSO<br>MAL<br>PROTEI<br>N L27A<br>[Arabi<br>dopsis<br>thalia<br>na] |              |  |
| 164853 | ATU026<br>793    | ATL8C1<br>3527:6<br>372..7<br>722 | nap |  | ATL8C1<br>3527:6<br>396..7<br>714 | 0.78 | 87 | 1301   | 1.4e-<br>137 | (AC006<br>250)<br>putati<br>ve<br>En/Spm<br>transp<br>oson<br>hypothe<br>tical<br>protei<br>n 1<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 164854 | ATU026<br>794    | ATL8C4<br>9471:1<br>..1140        | nap |  | ATL8C4<br>9471:2<br>21..58<br>7   | 0.77 | 87 | 94   | 0.042        | (AF013<br>293)<br>contai<br>ns<br>region<br>s of<br>weak<br>simila<br>rity<br>to<br>immuno<br>globul<br>in<br>heavy<br>chain<br>variab<br>le |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 164855 | ATU026<br>795 | ATL8C6<br>152:1.<br>.2137        | nap |  |  |  |  |  | ATL8C6<br>152:23<br>3..207<br>4  | 0.76 | g42062<br>02 | 87 | 1073 | 9.4e-<br>95  | region<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164856 | ATU026<br>796 | ATL8C2<br>0605:4<br>9..727       | nap |  |  |  |  |  | ATL8C2<br>0605:4<br>9..417       | 0.73 | g29472<br>23 | 87 | 99   | 8.6e-<br>08  | (AF071<br>527)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 164857 | ATU026<br>797 | ATL8C1<br>6779:3<br>45..28<br>99 | nap |  |  |  |  |  | ATL8C1<br>6779:3<br>45..28<br>77 | 0.70 | g44328<br>03 | 87 | 1475 | 1.7e-<br>139 | (AF022<br>773)<br>ORF3<br>[Lacto<br>coccus<br>bacter<br>iophag<br>e<br>phi31]               |
| 164858 | ATU026<br>798 | ATL8C2<br>7214:1<br>095..1       | nap |  |  |  |  |  | ATL8C2<br>7214:1<br>095..2<br>3  | 0.70 | g48367<br>87 | 87 | 546  | 4.0e-<br>51  | (AC006<br>437)<br>putati<br>ve<br>PttA2<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              | (AF143<br>681)<br>cell<br>cycle<br>checkp   |

|        |               |                                  |     |  |  |  |  |  |                                  |      |  |  |  |                               |        |             |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--|--|--|-------------------------------|--------|-------------|-----------------------------|---|
| 164859 | ATU026<br>799 | ATL8C1<br>8257:9<br>77..1        | nap |  |  |  |  |  | ATL8C1<br>8257:9<br>65..22       | 0.68 |  |  |  | g34174<br>49,<br>g24974<br>92 | 87, 56 | 427,<br>434 | 5.3e-<br>38,<br>8.2e-<br>42 | (AB010<br>087)<br>riboso<br>me<br>recycl<br>ing<br>factor<br>[Pseud<br>omonas<br>aerugi<br>nos];<br>URIDYL<br>ATE<br>KINASE<br>(UK)<br>(URIDI<br>NE<br>MONOPH<br>OSPHAT<br>E<br>KINASE<br>(UMP<br>KINASE<br>)<br>[Synec<br>hocyst<br>is<br>sp.] |
| 164860 | ATU026<br>800 | ATL8C1<br>2587:2<br>61..65<br>66 | nap |  |  |  |  |  | ATL8C1<br>2587:2<br>61..65<br>66 | 0.67 |  |  |  | g26879<br>42                  | 87     | 138         | 0.0093                      | (AE001<br>119)<br>hemoly<br>sin<br>(tlyC)   |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 164861 | ATU026<br>801 | ATL8S3<br>610:54<br>9..21       | nap |  |  |  |  | ATL8S3<br>610:49<br>3..21       | 0.66 | g20726<br>66 | 87 | 147 | 2.5e-<br>11 | [Borre<br>lia<br>burgdo<br>rferi]<br>(Z9512<br>0)<br>whiB1<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]  |
| 164862 | ATU026<br>802 | ATL8C3<br>7673:5<br>76..1       | nap |  |  |  |  | ATL8C3<br>7673:5<br>76..12<br>1 | 0.65 | g40564<br>15 | 87 | 313 | 1.3e-<br>30 | (AC005<br>322)<br>Simila<br>r to<br>the<br>end of<br>DNA<br>repair<br>protei<br>n<br>gb X74<br>615<br>(rad8)<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164863 | ATU026<br>803 | ATL8C2<br>8338:1<br>351..2<br>5 | nap |  |  |  |  | ATL8C2<br>8338:1<br>143..2<br>5 | 0.62 | g11736<br>38 | 87 | 954 | 1.4e-<br>88 | (U3577<br>9) 1-<br>aminoc<br>yclopr<br>opane-<br>1-<br>carbox<br>ylate<br>syntha   |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 164864 | ATU026<br>804 | ATL8C4<br>8804:6<br>18..24<br>09 | nap |  |  |  |  |  | ATL8C4<br>8804:6<br>18..23<br>88 | 0.60 | g36953<br>82 | 87 | 958 | 3.4e-<br>83 | se<br>[Triti<br>cum<br>aestiv<br>um]<br>(AF096<br>370)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Tall-1<br>(GB:L4<br>7193)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164865 | ATU026<br>805 | ATL8C4<br>6384:1<br>7..760       | nap |  |  |  |  |  | ATL8C4<br>6384:2<br>87..69<br>8  | 0.58 | g23410<br>24 | 87 | 597 | 1.1e-<br>52 | (AC000<br>104)<br>Fl9P19<br>.1<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164866 | ATU026<br>806 | ATL8C2<br>7379:9<br>50..1        | nap |  |  |  |  |  | ATL8C2<br>7379:9<br>50..98       | 0.57 | g23469<br>72 | 87 | 315 |             | (AB006<br>598)<br>ZPT2-<br>11<br>[Petun<br>ia x  |

|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 164867 | ATU026<br>807 | ATL8C8<br>655:71<br>0..1   | nap |  |  |  | ATL8C8<br>655:49<br>8..124       | 0.54 | g54863<br>4  | 87 | 540  | 2.8e-<br>50  | hybrid<br>aj<br>PTS<br>SYSTEM<br>, SORBOS<br>E-<br>SPECIF<br>IC IID<br>COMPON<br>ENT<br>(EIID-<br>SOR)<br>(SORBO<br>SE-<br>PERMEA<br>SE IID<br>COMPON<br>ENT)<br>(PHOSP<br>HOTRAN<br>SFERAS<br>E<br>ENZYME<br>II, D<br>COMPON<br>ENT)<br>[Klebs<br>iella<br>pneumo<br>niae] |
| 164868 | ATU026<br>808 | ATL8C4<br>2041:1<br>789..1 | nap |  |  |  | ATL8C4<br>2041:1<br>422..5<br>31 | 0.51 | g45860<br>66 | 87 | 1856 | 4.2e-<br>198 | (AC006<br>194)<br>putati<br>ve pol<br>polypr<br>oteins,<br>3',<br>partia<br>l   |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164869 | ATU026<br>809 | ATL8C4<br>892:31<br>45..1  | nap |  |  |  |  | ATL8C4<br>892:31<br>45..15<br>18 | 0.48 | g30470<br>86 | 87 | 2799 | 1.8e-<br>268 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF058<br>914)<br>simila<br>r to<br>revers<br>e<br>transc<br>riptas<br>e<br>(Pfam:<br>transc<br>ript_f<br>act.hm<br>m,<br>score:<br>72.31)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164870 | ATU026<br>810 | ATL8S2<br>5066:5<br>64..58 | nap |  |  |  |  | ATL8S2<br>5066:1<br>25..58       | 0.47 | g24972<br>19 | 87 | 191  | 5.8e-<br>12  | HYPOTH<br>ETICAL<br>15.4<br>KD<br>PROTEI<br>N IN<br>HAS1-<br>JNM1<br>INTERG<br>ENIC<br>REGION<br>[Sacch<br>aromyc<br>es<br>cerevi<br>siae]   |



|        |               |                                  |     |  |  |  |   |               |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|---|---------------|--------------|----|------|--------------|---|
| 164871 | ATU026<br>811 | ATL8C4<br>7612:1<br>..3952       | nap |  |  |  | ATL8C4<br>7612:9<br>2..320<br>9,<br>ATL8C4<br>7612:3<br>885..3<br>773 | 0.41,<br>0.96 | g29613<br>74 | 87 | 2095 | 3.1e-<br>211 | (AL022<br>141)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164872 | ATU026<br>812 | ATL8C3<br>8064:1<br>036..1       | nap |  |  |  |   |               | g48357<br>74 | 87 | 216  | 8.1e-<br>29  | (AC007<br>296)<br>EST<br>gb AA6<br>05362<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 164873 | ATU026<br>813 | ATL8C2<br>6329:2<br>99..18<br>80 | nap |  |  |  |   |               | g32928<br>33 | 87 | 398  | 3.9e-<br>18  | (AL031<br>018)<br>putati<br>ve<br>membra<br>ne<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 164874 | ATU026        | ATL8C3                           | nap |  |  |  |   |               | g28326       | 87 | 715  | 3.4e-        | (AL021  |

|        |               |                                   |     |  |  |  |  |  |  |                               |        |             |                             |  |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|-------------------------------|--------|-------------|-----------------------------|--|---|
|        | 814           | 0254:5<br>34..10<br>53            |     |  |  |  |  |  |  | 75                            |        |             |                             | 45   | 712)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164875 | ATU026<br>815 | ATL8S1<br>1854:4<br>13..24<br>9   | nap |  |  |  |  |  |  | g14031<br>8                   | 87     | 128         | 7.3e-<br>08                 | HYPOTH<br>ETICAL<br>6.5 KD<br>PROTEI<br>N (ORF<br>62)<br>[Nicot<br>iana<br>tabacu<br>m]        |   |
| 164876 | ATU026<br>816 | ATL8C3<br>1067:3<br>830..2<br>907 | nap |  |  |  |  |  |  | g43357<br>53                  | 87     | 682         | 7.4e-<br>61                 | (AC006<br>284)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]             |   |
| 164877 | ATU026<br>817 | ATL8C1<br>587:20<br>10..93<br>7   | nap |  |  |  |  |  |  | g29110<br>81,<br>g44903<br>39 | 87, 83 | 349,<br>283 | 6.7e-<br>45,<br>1.5e-<br>36 | (AL021<br>960)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AL035 |   |









|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164889 | ATU026<br>829 | ATL8C4<br>7182:1<br>024..3<br>14 | nap |  |  |  |  | ATL8C4<br>7182:9<br>71..31<br>7  | 0.99 | g49143<br>60 | 86 | 474  | 7.3e-<br>32  | dopsis<br>thalia<br>nal<br>(AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 164890 | ATU026<br>830 | ATL8C2<br>3634:6<br>24..1        | nap |  |  |  |  | ATL8C2<br>3634:6<br>24..31       | 0.93 | g28298<br>72 | 86 | 609  | 8.6e-<br>57  | (AC002<br>396)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                              |
| 164891 | ATU026<br>831 | ATL8C2<br>0805:2<br>254..1       | nap |  |  |  |  | ATL8C2<br>0805:2<br>168..1<br>60 | 0.91 | g47419<br>27 | 86 | 1341 | 4.5e-<br>139 | (AF130<br>252)<br>calciu<br>m<br>depend<br>ent<br>protei<br>n<br>kinase<br>CP4<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164892 | ATU026<br>832 | ATL8S3<br>0966:5<br>90..16       | nap |  |  |  |  | ATL8S3<br>0966:5<br>45..16       | 0.90 | g32565<br>26 | 86 | 152  | 1.1e-<br>12  | (AP000<br>001)<br>158aa  |





|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 164895 | ATU026<br>835 | ATL8C1<br>8185:3<br>92..1       | nap |  |  |  |  | ATL8C1<br>8185:3<br>92..31      | 0.87 | g10767<br>86 | 86 | 414 | 4.7e-<br>12 | prote<br>n [Arabi<br>dopsis<br>thalia<br>na]   |
| 164896 | ATU026<br>836 | ATL8C2<br>9250:2<br>75..82<br>3 | nap |  |  |  |  | ATL8C2<br>9250:2<br>75..59<br>4 | 0.84 | g30470<br>70 | 86 | 413 | 2.3e-<br>37 | (AF058<br>825)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164897 | ATU026<br>837 | ATL8C3<br>6655:5<br>87..1       | nap |  |  |  |  | ATL8C3<br>6655:5<br>87..22<br>2 | 0.84 | g22621<br>76 | 86 | 246 | 5.5e-<br>17 | (AC002<br>329)<br>putati<br>ve<br>RING<br>zinc-<br>finger<br>protei<br>n [Arabi<br>dopsis    |

|        |               |                                 |     |  |  |  |                                  |      |  |                               |        |             |                             |   |
|--------|---------------|---------------------------------|-----|--|--|--|----------------------------------|------|--|-------------------------------|--------|-------------|-----------------------------|---|
| 164898 | ATU026<br>838 | ATL8C4<br>9292:3<br>5..184<br>5 | nap |  |  |  | ATL8C4<br>9292:3<br>5..184<br>5  | 0.82 |  | g40391<br>55                  | 86     | 538         | 1.3e-<br>49                 | thalia<br>na]<br>(AF104<br>258)<br>putati<br>ve<br>copper<br>-<br>induci<br>ble<br>35.6<br>kDa<br>protei<br>n<br>[Festu<br>ca<br>rubra]   |
| 164899 | ATU026<br>839 | ATL8C2<br>4725:2<br>899..1      | nap |  |  |  | ATL8C2<br>4725:2<br>671..7<br>34 | 0.81 |  | g45586<br>66,<br>g23471<br>90 | 86, 84 | 512,<br>451 | 1.1e-<br>25,<br>2.7e-<br>41 | (AC007<br>063)<br>putati<br>ve<br>Na/H<br>antipo<br>rter<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC002<br>338)<br>Na/H<br>antipo<br>rter<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164900 | ATU026        | ATL8C4                          | nap |  |  |  | ATL8C4                           | 0.79 |  | g28916                        | 86     | 225         | 1.8e-                       | (L0379  |

|        |               |                                   |     |  |  |  |                                   |              |    |      |              |    |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|--------------|----|------|--------------|----|--|
| 164901 | 840           | 1055:1<br>..1207                  | nap |  |  |  | 1055:5<br>89..12<br>07            | 0            |    | 86   | 297          | 18 | 5)<br>jacali<br>n<br>[Artoc<br>arpus<br>integr<br>ifolia<br>]                          |
|        | ATU026<br>841 | ATL8C3<br>7027:1<br>2..116<br>6   | nap |  |  |  | ATL8C3<br>7027:8<br>1..103<br>9   | g32506<br>97 | 86 |      |              |    | (AL024<br>486)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 164902 | ATU026<br>842 | ATL8C4<br>6690:1<br>353..4<br>76  | nap |  |  |  | ATL8C4<br>6690:1<br>302..4<br>76  | g48843<br>72 | 86 | 126  | 5.3e-<br>11  |    | (AL050<br>159)<br>hypoth<br>etical<br>protei<br>n<br>[Homo<br>sapien<br>s]             |
| 164903 | ATU026<br>843 | ATL8C3<br>2672:4<br>218..2<br>103 | nap |  |  |  | ATL8C3<br>2672:4<br>054..2<br>103 | g28298<br>87 | 86 | 1979 | 6.2e-<br>197 |    | (AC002<br>396)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164904 | ATU026<br>844 | ATL8S2<br>9930:1<br>..727         | nap |  |  |  | ATL8S2<br>9930:8<br>4..712        | g25063<br>37 | 86 | 608  | 6.6e-<br>60  |    | ACYL-<br>[Esche<br>richia  |

|        |               |                                   |     |  |  |  |  |   |               |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|---|---------------|--------------|----|-----|-------------|---|
| 164905 | ATU026<br>845 | ATL8S1<br>846:16<br>6..567        | nap |  |  |  |  | ATL8S1<br>846:16<br>6..501  | 0.71          | g10647<br>95 | 86 | 248 | 9.2e-<br>22 | coli]<br>(D7819<br>3)<br>yydA<br>[Bacil<br>lus<br>subtil<br>is]   |
| 164906 | ATU026<br>846 | ATL8S2<br>3003:5<br>5..567        | nap |  |  |  |  | ATL8S2<br>3003:5<br>5..553  | 0.68          | g12045<br>0  | 86 | 374 | 1.8e-<br>32 | POLYPE<br>PTIDE<br>DEFORM<br>YLASE<br>(PDF)<br>(FORMY<br>LMETHI<br>ONINE<br>DEFORM<br>YLASE)<br>[Esche<br>richia<br>coli] |
| 164907 | ATU026<br>847 | ATL8C3<br>7749:1<br>522..1        | nap |  |  |  |  | ATL8C3<br>7749:1<br>522..2<br>16  | 0.66          | g29808<br>07 | 86 | 840 | 6.3e-<br>71 | (AL022<br>197)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 164908 | ATU026<br>848 | ATL8C3<br>6846:2<br>077..3<br>998 | nap |  |  |  |  | ATL8C3<br>6846:2<br>077..2<br>668,<br>ATL8C3<br>6846:3<br>575..3<br>998 | 0.65,<br>0.68 | g35488<br>07 | 86 | 127 | 7.9e-<br>06 | (AC005<br>313)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia   |



|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|-------------|--|
| 164912 | ATU026<br>852 | ATL8C1<br>8222:1<br>..1156      | nap |  |  |  |  | ATL8C1<br>8222:4<br>28..86<br>3 | 0.55 | g44689<br>88 | 86 | 1207 | 5.9e-<br>76 | dopsis<br>thalia<br>na]<br>(AL035<br>605)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 164913 | ATU026<br>853 | ATL8S2<br>7475:4<br>61..12<br>3 | nap |  |  |  |  | ATL8S2<br>7475:4<br>58..24<br>8 | 0.55 | g40985<br>75 | 86 | 414  | 3.8e-<br>23 | (U7973<br>5)<br>riboso<br>mal<br>protei<br>n S11<br>[Xanth<br>omonas<br>campes<br>tris<br>pv.<br>campes<br>tris] |
| 164914 | ATU026<br>854 | ATL8C1<br>4772:9<br>31..44      | nap |  |  |  |  | ATL8C1<br>4772:4<br>02..58      | 0.52 | g42630<br>50 | 86 | 485  | 2.7e-<br>43 | (AC005<br>142)<br>putati<br>ve<br>noduli<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 164915 | ATU026<br>855 | ATL8S2<br>1628:4<br>03..1       | nap |  |  |  |  |                                 |      | g28223<br>22 | 86 | 169  | 5.8e-<br>09 | (AF016<br>485)<br>ORF<br>H0549   |

|        |               |                           |     |  |  |  |  |  |  |  |  |  |  |              |    |  |      |              |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--|--|--|--|--------------|----|--|------|--------------|---|
| 164916 | ATU026<br>856 | ATL8S9<br>822:56<br>4..36 | nap |  |  |  |  |  |  |  |  |  |  | g45859<br>33 | 86 |  | 747  | 3.6e-<br>50  | [Halob<br>acteri<br>um sp.<br>NRC-1]  |
| 164917 | ATU026<br>857 | ATL8C1<br>0698:3<br>93..1 | nap |  |  |  |  |  |  |  |  |  |  | g40068<br>63 | 86 |  | 145  |              | (Z9970<br>7)<br>putati<br>ve<br>protei<br>n<br>(parti<br>al)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164918 | ATU026<br>858 | ATL8C3<br>3047:1<br>..383 | nap |  |  |  |  |  |  |  |  |  |  | g30969<br>44 | 86 |  | 83   | 3.4e-<br>08  | (AL023<br>094)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 164919 | ATU026<br>859 | ATL8C8<br>179:14<br>72..1 | nap |  |  |  |  |  |  |  |  |  |  | g41853<br>10 | 86 |  | 2059 | 4.7e-<br>181 | (AF090<br>446)<br>gag<br>protei   |









|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|--|
| 164928 | ATU026<br>868 | ATL8C3<br>9934:1<br>577..2<br>396 | nap |  |  |  |  |  |  |  |  |  | g22449<br>78 | 86 | 205 | 1.0e-<br>25 | (Z9734<br>0)<br>simila<br>rity to<br>splici<br>ng<br>factor<br>SF3a<br>120K<br>chain<br>-<br>human<br>[Arabi<br>dopsis<br>thalia<br>na] | 007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164929 | ATU026<br>869 | ATL8C1<br>2027:1<br>103..4<br>63  | nap |  |  |  |  |  |  |  |  |  | g29110<br>65 | 86 | 777 | 2.2e-<br>72 | (AL021<br>960)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |  |
| 164930 | ATU026<br>870 | ATL8C4<br>1683:4<br>6..544        | nap |  |  |  |  |  |  |  |  |  | g24967<br>35 | 86 | 537 | 2.0e-<br>47 | HYPOTH<br>ETICAL<br>21.1<br>KD<br>PROTEI<br>N<br>Y4PG/Y   |  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 164931 | ATU026<br>871 | ATL8C3<br>1081:1<br>582..1        | nap |  |  |  |  |  |  |  |  |  | g44671<br>07 | 86 | 504  | 4.6e-<br>35  | 4SC<br>[Rhizo<br>bium<br>sp.<br>NGR234<br>]  |
| 164932 | ATU026<br>872 | ATL8S1<br>1791:1<br>..466         | nap |  |  |  |  |  |  |  |  |  | g11976<br>67 | 86 | 86   | 0.094        | (U4685<br>7)<br>vitell<br>ogenin<br>[Anoli<br>s<br>pulche<br>llus]   |
| 164933 | ATU026<br>873 | ATL8C3<br>4205:5<br>520..3<br>800 | nap |  |  |  |  |  |  |  |  |  | g45860<br>66 | 86 | 1777 | 8.4e-<br>197 | (AC006<br>194)<br>putati<br>ve pol<br>polypr<br>otein,<br>3'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164934 | ATU026<br>874 | ATL8C4<br>2815:1<br>..4106        | nap |  |  |  |  |  |  |  |  |  | g43253<br>54 | 86 | 4494 | 0.0          | (AF128<br>395)<br>contai   |

[illegible]

|        |               |                            |     |  |  |  |  |  |  |              |    |      |             |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|--------------|----|------|-------------|---|
| 164936 | ATU026<br>876 | ATL8C1<br>2303:1<br>..996  | nap |  |  |  |  |  |  | g44551<br>77 | 86 | 551  | 8.0e-<br>46 | (AL035<br>521)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164937 | ATU026<br>877 | ATL8C1<br>8728:1<br>5..732 | nap |  |  |  |  |  |  | g33353<br>42 | 86 | 839  | 2.0e-<br>75 | (AC004<br>512)<br>Simila<br>r to<br>gb Y08<br>239<br>MADS<br>domain<br>transc<br>riptio<br>n<br>factor<br>(CRM3)<br>from<br>Cerato<br>pteris<br>richar<br>dii.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164938 | ATU026<br>878 | ATL8C9<br>885:35<br>43..1  | nap |  |  |  |  |  |  | g27087<br>43 | 86 | 3239 | 0.0         | (AC003<br>952)<br>putati<br>ve<br>Tal-1-<br>like<br>revers<br>e   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 164939 | ATU026<br>879 | ATL8C1<br>7725:1<br>..1607       | nap |  |  |  |  | ATL8C1<br>7725:1<br>35..16<br>07 | 0.99 | g45126<br>98 | 85 | 753 | 2.2e-<br>86 | (AC006<br>569)<br>hypothe-<br>tical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 164940 | ATU026<br>880 | ATL8C4<br>8736:6<br>47..1        | nap |  |  |  |  | ATL8C4<br>8736:6<br>47..10       | 0.96 | g17081<br>03 | 85 | 255 | 4.0e-<br>17 | HISTON<br>E H2B-<br>I<br>[Chlam<br>ydomon<br>as<br>reinha<br>rdtii]                      |
| 164941 | ATU026<br>881 | ATL8C4<br>4782:1<br>53..19<br>07 | nap |  |  |  |  | ATL8C4<br>4782:1<br>77..18<br>18 | 0.95 | g36500<br>36 | 85 | 676 | 2.1e-<br>89 | (AC005<br>396)<br>putati-<br>ve<br>transp-<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164942 | ATU026<br>882 | ATL8C1<br>6485:8<br>53..1        | nap |  |  |  |  | ATL8C1<br>6485:7<br>70..40<br>9  | 0.95 | g47739<br>07 | 85 | 140 | 5.3e-<br>11 | (AF074<br>021)<br>hypothe-<br>tical<br>protein   |

|        |               |                                   |     |  |  |  |  |  |      |  |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|------|--|--------------|----|-----|-------------|---|
| 164943 | ATU026<br>883 | ATL8C1<br>2546:3<br>12..21<br>90  | nap |  |  |  |  |  | 0.94 |  | g39414<br>80 | 85 | 579 | 7.6e-<br>37 | n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 164944 | ATU026<br>884 | ATL8C3<br>3293:1<br>889..1        | nap |  |  |  |  |  | 0.93 |  | g31532<br>37 | 85 | 363 | 1.6e-<br>40 | (AF047<br>852)<br>termin<br>al<br>earl<br>[Zea<br>mays]                     |
| 164945 | ATU026<br>885 | ATL8S4<br>526:48<br>0..1          | nap |  |  |  |  |  | 0.93 |  | g32983<br>55 | 85 | 542 | 2.9e-<br>48 | (AB010<br>689)<br>AhpC<br>[Pseud<br>omonas<br>putida<br>]                   |
| 164946 | ATU026<br>886 | ATL8C1<br>2135:2<br>784..1<br>844 | nap |  |  |  |  |  | 0.92 |  | g33778<br>43 | 85 | 908 | 1.9e-<br>93 | (AF076<br>274)<br>contai<br>ns<br>simila<br>rity<br>to rat<br>p47<br>protei |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 164947 | ATU026<br>887 | ATL8C2<br>6273:1<br>435..1       | nap |  |  |  |  | ATL8C2<br>6273:1<br>435..1<br>7  | 0.91 | g32826<br>74 | 85 | 420  | 1.3e-<br>42  | n<br>(GB:AB<br>002086<br>)<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 164948 | ATU026<br>888 | ATL8C3<br>1069:3<br>06..15<br>19 | nap |  |  |  |  | ATL8C3<br>1069:4<br>65..15<br>08 | 0.91 | g22449<br>05 | 85 | 1859 | 9.2e-<br>177 | (Z9733<br>9)<br>indole<br>-3-<br>acetat<br>e<br>beta-<br>glucos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 164949 | ATU026<br>889 | ATL8C2<br>5084:1<br>640..6       | nap |  |  |  |  | ATL8C2<br>5084:1<br>595..6       | 0.91 | g28326<br>78 | 85 | 484  | 3.0e-<br>53  | (AL021<br>712)<br>putati   |

|        |               |   |                                   |     |  |  |  |  |                                   |      |  |              |    |      |             |  |
|--------|---------------|---|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--|--------------|----|------|-------------|--|
| 164950 | ATU026<br>890 | 9 | ATL8C1<br>0850:1<br>2..692        | nap |  |  |  |  | ATL8C1<br>0850:1<br>2..592        | 0.90 |  | g30804<br>39 | 85 | 162  | 2.9e-<br>09 | ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL022<br>605)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164951 | ATU026<br>891 |   | ATL8C4<br>6817:1<br>597..3<br>7   | nap |  |  |  |  | ATL8C4<br>6817:1<br>580..7<br>3   | 0.85 |  | g22447<br>52 | 85 | 793  | 1.8e-<br>88 | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164952 | ATU026<br>892 |   | ATL8C4<br>8115:1<br>299..2<br>291 | nap |  |  |  |  | ATL8C4<br>8115:1<br>989..1<br>886 | 0.83 |  | g47339<br>60 | 85 | 1040 | 2.7e-<br>98 | (AC007<br>294)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 164953 | ATU026        |   | ATL8C9                            | nap |  |  |  |  | ATL8C9                            | 0.83 |  | g28275       | 85 | 286  | 7.0e-       | (AL021   |

|        | 893           | 400:45<br>25..73<br>11            |     |  |  |  |  | 400:51<br>15..73<br>11            | 28   |              |    |      | 14   | 633)<br>predic<br>ted<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--|--|
| 164954 | ATU026<br>894 | ATL8C2<br>0495:3<br>74..14<br>74  | nap |  |  |  |  | ATL8C2<br>0495:8<br>11..13<br>69  | 0.83 | g45862<br>47 | 85 | 342  | 4.2e-<br>39  | (AL049<br>640)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 164955 | ATU026<br>895 | ATL8C4<br>2000:1<br>356..4<br>453 | nap |  |  |  |  | ATL8C4<br>2000:1<br>660..4<br>068 | 0.82 | g40637<br>59 | 85 | 2465 | 1.3e-<br>194   | (AC005<br>561)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164956 | ATU026<br>896 | ATL8C9<br>105:18<br>78..41<br>9   | nap |  |  |  |  | ATL8C9<br>105:17<br>42..41<br>9   | 0.81 | g22448<br>60 | 85 | 684  | (Z9733<br>7)<br>cucumi<br>sin<br>[Arabi<br>dopsis<br>thalia<br>na] | (Z9733<br>7)<br>cucumi<br>sin<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 164957 | ATU026<br>897 | ATL8C3<br>3417:1<br>423..1        | nap |  |  |  |  | ATL8C3<br>3417:1<br>423..1        | 0.81 | g24438<br>75 | 85 | 1445 | 3.1e-<br>145   | (AC002<br>294)<br>amino  |

|        |               |                            |     |  |  |  |  |  |                                  |      |              |    |      |              |   |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|---|
|        |               |                            |     |  |  |  |  |  | 0                                |      |              |    |      |              |   | acid<br>permea<br>se<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164958 | ATU026<br>898 | ATL8C3<br>4503:1<br>..1681 | nap |  |  |  |  |  | ATL8C3<br>4503:8<br>1..123<br>3  | 0.76 | g42637<br>02 | 85 | 920  | 4.0e-<br>74  | (AC006<br>223)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          |   |
| 164959 | ATU026<br>899 | ATL8C1<br>7046:1<br>..5188 | nap |  |  |  |  |  | ATL8C1<br>7046:3<br>91..36<br>61 | 0.76 | g47340<br>13 | 85 | 1808 | 1.1e-<br>186 | (AC007<br>112)<br>putati<br>ve<br>TNP1<br>of the<br>Taml<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 164960 | ATU026<br>900 | ATL8C8<br>265:1.<br>'2127  | nap |  |  |  |  |  | ATL8C8<br>265:84<br>0..192<br>5  | 0.75 | g48369<br>29 | 85 | 1506 | 1.1e-<br>124 | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          |   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|--|
| 164961 | ATU026<br>901 | ATL8C1<br>0439:3<br>98..19<br>33 | nap |  |  |  | ATL8C1<br>0439:3<br>98..17<br>51 | 0.74 | g36458<br>98 | 85 | 2345 |             | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possibly a<br>post-<br>transp-<br>osition<br>n mutati-<br>on<br>[Zea<br>mays] |
| 164962 | ATU026<br>902 | ATL8C1<br>3921:2<br>3..742       | nap |  |  |  | ATL8C1<br>3921:1<br>34..28<br>3  | 0.73 | g31282<br>34 | 85 | 640  | 1.3e-<br>42 | (AC004<br>077)<br>hypoth-<br>etical<br>protein<br>[Arabi-<br>dopsis<br>thalia<br>na]   |
| 164963 | ATU026<br>903 | ATL8C2<br>4288:1<br>..2924       | nap |  |  |  | ATL8C2<br>4288:6<br>5..290<br>1  | 0.71 | g35488<br>04 | 85 | 1134 | 6.2e-<br>96 | (AC005<br>313)<br>unknown<br>protein<br>[Arabi-<br>dopsis<br>thalia<br>na]   |
| 164964 | ATU026<br>904 | ATL8S1<br>9823:1<br>..416        | nap |  |  |  | ATL8S1<br>9823:3<br>5..414       | 0.70 | g11698<br>84 | 85 | 171  | 5.2e-<br>14 | GLYCIN<br>E<br>CLEAVA<br>GE<br>SYSTEM  |

|        |               |                                   |     |  |  |  |  |                                   |      |                             |        |             |                             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|-----------------------------|--------|-------------|-----------------------------|--|
| 164965 | ATU026<br>905 | ATL8C4<br>5591:8<br>960..3<br>503 | nap |  |  |  |  | ATL8C4<br>5591:4<br>763..3<br>503 | 0.70 | g42638<br>30                | 85     | 1700        | 4.3e-<br>135                | (AC006<br>067)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 164966 | ATU026<br>906 | ATL8C2<br>351:10<br>38..1         | nap |  |  |  |  | ATL8C2<br>351:10<br>38..12<br>7   | 0.70 | g45126<br>97                | 85     | 541         | 2.6e-<br>50                 | (AC006<br>569)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 164967 | ATU026<br>907 | ATL8C3<br>0601:3<br>800..2        | nap |  |  |  |  | ATL8C3<br>0601:3<br>308..9<br>25  | 0.69 | g10874<br>,<br>g23155<br>79 | 85, 70 | 439,<br>334 | 7.2e-<br>38,<br>2.0e-<br>29 | (X0297<br>4)<br>pot.<br>w(+)<br>polype<br>ptide<br>[Droso<br>phila<br>melano<br>gaster<br>]; |



|        |               |                                  |     |  |  |  |  |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 164969 | ATU026<br>909 | ATL8C1<br>2378:1<br>130..7<br>8  | nap |  |  |  |  | ATL8C1<br>2378:9<br>28..28<br>5  | 0.67 | g47340<br>01                  | 85     | 510         | 6.3e-<br>58                 | (AC007<br>187)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164970 | ATU026<br>910 | ATL8C1<br>2810:6<br>10..62<br>46 | nap |  |  |  |  | ATL8C1<br>2810:6<br>10..62<br>46 | 0.65 | g33553<br>08,<br>g33353<br>52 | 85, 50 | 813,<br>503 | 8.5e-<br>94,<br>1.1e-<br>55 | (AJ009<br>695)<br>wall-<br>associ<br>ated<br>kinase<br>4<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC004<br>512)<br>Contai<br>ns<br>simila<br>rity<br>to<br>serine<br>/threo<br>nine<br>kinase<br>homolo |



|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |     |             |  |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|---|
| 164971 | ATU026<br>911 | ATL8C3<br>4663:1<br>..1823 | nap |  |  |  |  |  | ATL8C3<br>4663:4<br>4..182<br>3 | 0.64 | g10013<br>55 | 85 | 394 | 1.2e-<br>34 | (D6400<br>6)<br>auxin-<br>induce<br>d<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]       | 9<br>PRO25<br>gb L04<br>999<br>from<br>A.<br>thalia<br>na.<br>EST<br>gb Z17<br>531<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164972 | ATU026<br>912 | ATL8S2<br>7825:1<br>..369  | nap |  |  |  |  |  | ATL8S2<br>7825:2<br>07..35<br>3 | 0.62 | g33342<br>88 | 85 | 158 | 1.9e-<br>12 | PHENYL<br>ACETIC<br>ACID<br>DEGRAD<br>ATION<br>PROTEI<br>N PAAL<br>[Esche<br>richia<br>coli] | 9<br>PRO25<br>gb L04<br>999<br>from<br>A.<br>thalia<br>na.<br>EST<br>gb Z17<br>531<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 164973 | ATU026<br>913 | ATL8C3<br>6303:8<br>4..176<br>9 | nap |  |  | ATL8C3<br>6303:8<br>4..172<br>5 | 0.59 | g36881<br>76 | 85 | 463 | 5.0e-<br>54 | (AL031<br>804)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 164974 | ATU026<br>914 | ATL8C2<br>5874:6<br>39..8       | nap |  |  | ATL8C2<br>5874:6<br>39..47      | 0.58 | g12729<br>7  | 85 | 98  | 1.4e-<br>07 | MPV17<br>PROTEI<br>N<br>[Mus<br>muscul<br>us]  |
| 164975 | ATU026<br>915 | ATL8C8<br>252:30<br>0..951      | nap |  |  | ATL8C8<br>252:68<br>9..868      | 0.57 | g42637<br>69 | 85 | 773 | 1.7e-<br>46 | (AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 164976 | ATU026<br>916 | ATL8S1<br>5097:5<br>62..1       | nap |  |  | ATL8S1<br>5097:3<br>32..85      | 0.57 | g24966<br>70 | 85 | 640 | 1.5e-<br>53 | HYPOTH<br>ETICAL<br>25.1<br>KD<br>PROTEI<br>N Y4JL<br>[Rhizo<br>bium<br>sp.<br>NGR234<br>] |
| 164977 | ATU026<br>917 | ATL8C2<br>2317:1<br>..764       | nap |  |  | ATL8C2<br>2317:5<br>46..76      | 0.55 | g33373<br>63 | 85 | 617 | 5.2e-<br>60 | (AC004<br>481)<br>putati   |

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| 164978 | ATU026<br>918 | ATL8C3<br>7955:1<br>278..1 | nap |  |  |  |  | 4                                | 0.54 | g45811<br>43 | 85 | 575  | 9.3e-<br>63 | (AC006<br>919)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]                 |
| 164979 | ATU026<br>919 | ATL8C3<br>348:1.<br>.868   | nap |  |  |  |  | ATL8C3<br>348:12<br>0..849       | 0.52 | g45861<br>10 | 85 | 1298 | 1.2e-<br>79 | (AL049<br>638)<br>putati<br>ve<br>DNA-<br>bindin<br>g protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 164980 | ATU026<br>920 | ATL8C1<br>4401:1<br>..1974 | nap |  |  |  |  | ATL8C1<br>4401:5<br>12..10<br>15 | 0.49 | g30470<br>66 | 85 | 442  | 2.5e-<br>47 | (AF058<br>825)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrov                                    |

|        |               |                           |     |  |  |  |  |                                  |      |              |    |     |             |   |   |
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| 164981 | ATU026<br>921 | ATL8S1<br>226:1.<br>.368  | nap |  |  |  |  | ATL8S1<br>226:12<br>8..43        | 0.49 | g33778<br>46 | 85 | 262 | 4.9e-<br>22 | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]              | irus-<br>relate<br>d POL<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164982 | ATU026<br>922 | ATL8C8<br>264:1.<br>.1121 | nap |  |  |  |  | ATL8C8<br>264:10<br>65..11<br>21 | 0.49 | g17070<br>16 | 85 | 242 | 7.6e-<br>20 | (U7872<br>1)<br>cadmiu<br>m-<br>induce<br>d<br>protei<br>n<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 164983 | ATU026<br>923 | ATL8S2<br>2623:5<br>78..1 | nap |  |  |  |  | ATL8S2<br>2623:4<br>77..30       | 0.48 | g32942<br>37 | 85 | 219 | 2.2e-<br>18 | (AL031<br>031)<br>two-<br>compon<br>ent<br>regula<br>tor  |   |

|        |               |                            |     |  |  |  |  |                                   |      |  |                               |        |              |                              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|-----------------------------------|------|--|-------------------------------|--------|--------------|------------------------------|---|
| 164984 | ATU026<br>924 | ATL8C1<br>2250:4<br>23..1  | nap |  |  |  |  | ATL8C1<br>2250:3<br>86..17        | 0.48 |  | g32490<br>87                  | 85     | 479          | 1.8e-<br>45                  | [Strep<br>tomyces<br>coelicolor]<br>(AC004<br>473)<br>Contai<br>ns<br>simila<br>rity<br>to TMV<br>resist<br>ance<br>protei<br>n N<br>homolo<br>g<br>gb 224<br>5048<br>from<br>A.<br>thalia<br>na<br>chromo<br>some 4<br>contig<br>gb 297<br>342.<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>161)<br>,<br>simila<br>r to<br>leucin<br>e<br>zipper |
| 164985 | ATU026<br>925 | ATL8C4<br>6739:1<br>..3979 | nap |  |  |  |  | ATL8C4<br>6739:1<br>426..3<br>884 | 0.47 |  | g42622<br>10,<br>g40068<br>21 | 85, 43 | 1691,<br>373 | 5.3e-<br>155,<br>3.2e-<br>16 |   |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |              |    |      |              |   |
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| 164986 | ATU026<br>926 | ATL8C3<br>3354:1<br>473..5<br>12 | nap |  |  |  |  |  |  | ATL8C3<br>3354:1<br>072..6<br>97 | 0.46 | g40564<br>42 | 85 | 797  | 1.8e-<br>75  | transcription factor [Arabidopsis thaliana]; (AC005970) hypothetical protein [Arabidopsis thaliana] |
| 164987 | ATU026<br>927 | ATL8C3<br>7824:1<br>..4381       | nap |  |  |  |  |  |  | ATL8C3<br>7824:9<br>8..414       | 0.45 | g44328<br>66 | 85 | 2817 | 2.9e-<br>297 | (AC006300) putative   |

|        |               |                            |     |  |  |  |  |   |  |      |              |    |      |              |   |   |
|--------|---------------|----------------------------|-----|--|--|--|--|---|--|------|--------------|----|------|--------------|---|---|
| 164988 | ATU026<br>928 | ATL8C3<br>1961:6<br>..994  | nap |  |  |  |  | 7 |  | 0.45 | g13635<br>28 | 85 | 1491 | 9.0e-<br>137 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]  | ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 164989 | ATU026<br>929 | ATL8C2<br>1341:3<br>227..1 | nap |  |  |  |  |   |  | 0.45 | g43887<br>19 | 85 | 1960 | 2.9e-<br>128 | (AC006<br>413)<br>putati<br>ve<br>myosin<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |   |
| 164990 | ATU026<br>930 | ATL8S4<br>781:1.<br>.496   | nap |  |  |  |  |   |  | 0.44 | g33188<br>53 | 85 | 573  | 2.3e-<br>53  | Chain<br>A, The<br>Struct<br>ure Of<br>Clpp<br>At 2.3<br>Angstr<br>om<br>Resolu<br>tion<br>Sugges<br>ts A |   |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 164991 | ATU026<br>931 | ATL8C1<br>4494:4<br>063..1 | nap |  |  |  |  | ATL8C1<br>4494:1<br>535..4<br>32 | 0.43 | g45220<br>05 | 85 | 2279 | 3.7e-<br>242 | (AC007<br>069)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 164992 | ATU026<br>932 | ATL8C4<br>4124:3<br>894..1 | nap |  |  |  |  | ATL8C4<br>4124:3<br>368..7<br>7  | 0.43 | g43253<br>54 | 85 | 1670 | 3.4e-<br>147 | (AF128<br>395)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrov<br>irus-<br>relate<br>d<br>polypr<br>oteins<br>and to<br>CCHC<br>zinc<br>finger<br>protei<br>n |



|        |               |                                  |     |  |  |  |  |  |      |              |    |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|------|--------------|----|------|-------------|---|
| 164993 | ATU026<br>933 | ATL8C2<br>486:11<br>11..1        | nap |  |  |  |  |  | 0.43 | g48357<br>95 | 85 | 230  | 1.3e-<br>29 | (Pfam:<br>PF0009<br>8,<br>Score=<br>16.3,<br>E=0.05<br>1, E=<br>1)<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 164994 | ATU026<br>934 | ATL8S2<br>4026:3<br>46..1        | nap |  |  |  |  |  | 0.41 | g13271<br>4  | 85 | 214  | 5.1e-<br>14 | CHLORO<br>PLAST<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L16<br>(RIBOS<br>OMAL<br>PROTEI<br>N CS-<br>L24)<br>[Spina<br>cia<br>olerac<br>ea] |
| 164995 | ATU026<br>935 | ATL8C1<br>2153:3<br>77..17<br>26 | nap |  |  |  |  |  | 0.41 | g22451<br>06 | 85 | 1013 | 1.8e-<br>82 | (Z9734<br>3)<br>thioes<br>terase  |



[illegible]

|        |               |                                 |     |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 164998 | ATU026<br>938 | ATL8C1<br>1348:1<br>..653       | nap |  |  |  |  |  |  | g47339<br>99 | 85 | 110 | 4.0e-<br>10 | na]<br>(AC007<br>187)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 164999 | ATU026<br>939 | ATL8S2<br>3006:5<br>48..1       | nap |  |  |  |  |  |  | g31842<br>87 | 85 | 560 | 8.2e-<br>44 | (AC004<br>136)<br>revers<br>e-<br>transc<br>riptas<br>e-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165000 | ATU026<br>940 | ATL8C6<br>44:134<br>9..1        | nap |  |  |  |  |  |  | g38926<br>99 | 85 | 166 | 1.0e-<br>28 | (AL033<br>545)<br>hypoth<br>etical<br>protei<br>n<br>(fragm<br>ent)<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 165001 | ATU026<br>941 | ATL8C1<br>4399:5<br>72..10<br>8 | nap |  |  |  |  |  |  | g42622<br>43 | 85 | 614 | 8.4e-<br>54 | (AC006<br>200)<br>hypoth<br>etical   |





|        |               |                                 |     |  |  |  |  |  |  |              |    |     |             |  |
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| 165009 | ATU026<br>949 | ATL8C3<br>3826:8<br>1..144<br>1 | nap |  |  |  |  |  |  | g44903<br>39 | 85 | 164 | 4.3e-<br>22 | na]<br>(AL035<br>656)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 165010 | ATU026<br>950 | ATL8S1<br>7687:2<br>22..1       | nap |  |  |  |  |  |  | g30435<br>36 | 85 | 290 | 1.5e-<br>26 | (AB000<br>708)<br>SAUR<br>[Rapha<br>nus<br>sativu<br>s]                                      |
| 165011 | ATU026<br>951 | ATL8C4<br>5296:1<br>591..1      | nap |  |  |  |  |  |  | g40068<br>23 | 85 | 264 | 8.8e-<br>13 | (AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 165012 | ATU026<br>952 | ATL8S1<br>6930:5<br>69..24<br>6 | nap |  |  |  |  |  |  | g33778<br>46 | 85 | 321 |             | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165013 | ATU026        | ATL8C3                          | nap |  |  |  |  |  |  | g45824       | 85 | 411 | 1.7e-       | (AC007   |

|        |               |                                  |     |  |  |  |  |  |  |  |  |  |  |  |  |              |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--------------|--------------|--|
| 165014 | ATU026<br>954 | ATL8C2<br>8456:1<br>..384        | nap |  |  |  |  |  |  |  |  |  |  |  |  | 55           | 41           | 071)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165015 | ATU026<br>955 | ATL8C2<br>2868:2<br>322..2<br>88 | nap |  |  |  |  |  |  |  |  |  |  |  |  | g35401<br>92 | 2.1e-<br>28  | (AC004<br>122)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 165016 | ATU026<br>956 | ATL8C3<br>0940:1<br>..1461       | nap |  |  |  |  |  |  |  |  |  |  |  |  | g43888<br>19 | 3.2e-<br>192 | (AC006<br>528)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n                                   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |              |   |
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| 165017 | ATU026<br>957 | ATL8C1<br>8465:9<br>72..12<br>44 | nap |  |  |  |  | ATL8C1<br>8465:9<br>72..12<br>22 | 0.99 | g44067<br>72 | 84 | 116 | 2.2e-<br>12  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>836)<br>putati<br>ve<br>nitri<br>lase-<br>associ<br>ated<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165018 | ATU026<br>958 | ATL8S1<br>5029:4<br>81..1        | nap |  |  |  |  | ATL8S1<br>5029:4<br>16..21       | 0.97 | g31146<br>56 | 84 | 178 | 1.8e-<br>16  | (AF060<br>871)<br>putati<br>ve<br>site<br>specif<br>ic<br>recomb<br>inase<br>[Rhodo<br>coccus<br>rhodoc<br>hrous]   |
| 165019 | ATU026<br>959 | ATL8C2<br>6017:1<br>..1503       | nap |  |  |  |  | ATL8C2<br>6017:5<br>0..150<br>3  | 0.97 | g22889<br>98 | 84 | 990 | 6.3e-<br>105 | (AC002<br>335)<br>peroxi<br>dase<br>isolat<br>[Arabi<br>dopsis<br>thalia<br>na]   |



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|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 165020 | ATU026<br>960 | ATL8C1<br>3163:3<br>420..1        | nap |  |  |  | ATL8C1<br>3163:3<br>347..2<br>9   | 0.95 | g11706<br>19 | 84 | 2282 | 3.7e-<br>180 | KINESI<br>N-LIKE<br>PROTEI<br>N A<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165021 | ATU026<br>961 | ATL8C3<br>7020:8<br>66..1         | nap |  |  |  | ATL8C3<br>7020:7<br>99..19        | 0.95 | g48357<br>90 | 84 | 116  |              | (AC007<br>296)<br>F25C20<br>.16<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165022 | ATU026<br>962 | ATL8C4<br>1980:2<br>860..5<br>043 | nap |  |  |  | ATL8C4<br>1980:2<br>860..5<br>012 | 0.94 | g33778<br>17 | 84 | 784  | 1.7e-<br>79  | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>C3HC4-<br>type<br>zinc<br>finger<br>s<br>(Pfam:<br>zf-<br>C3HC4.<br>hmm,<br>score:<br>29.48)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165023 | ATU026<br>963 | ATL8C5<br>832:23                  | nap |  |  |  | ATL8C5<br>832:17                  | 0.93 | g48952<br>41 | 84 | 868  |              | (AC007<br>659)  |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165024 | ATU026<br>964 | 90..10<br>32                     | nap |  |  |  | 53..10<br>36                     | 0.93 | g41015<br>64 | 84 | 312  | 4.4e-<br>25  | (AF004<br>556)<br>IFA-<br>bindin<br>g protei<br>n [Arabi<br>dopsis<br>thalia<br>nal]                 |
| 165025 | ATU026<br>965 | ATL8C2<br>7047:5<br>43..44<br>17 | nap |  |  |  | ATL8C4<br>2450:6<br>02..28<br>79 | 0.92 | g34618<br>41 | 84 | 1654 | 1.3e-<br>143 | (AC005<br>315)<br>putati<br>ve recept<br>or protei<br>n kinase<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165026 | ATU026<br>966 | ATL8C3<br>5159:5<br>88..1        | nap |  |  |  | ATL8C3<br>5159:4<br>04..24       | 0.91 | g32491<br>06 | 84 | 203  | 1.4e-<br>18  | (AC003<br>114)<br>T12M4.<br>16<br>[Arabi<br>dopsis<br>thalia<br>nal]                                 |

|        |               |                            |     |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 165027 | ATU026<br>967 | ATL8S1<br>5011:6<br>4..515 | nap |  |  |  | ATL8S1<br>5011:7<br>6..346      | 0.90 | g17110<br>68 | 84 | 217 | 2.8e-<br>18 | (U7883<br>9)<br>phytoc<br>hrome<br>E<br>[Carmi<br>chaeli<br>a sp.<br>'lavin<br>6201']  |
| 165028 | ATU026<br>968 | ATL8C1<br>5946:1<br>..1915 | nap |  |  |  | ATL8C1<br>5946:8<br>1..190<br>3 | 0.89 | g27393<br>66 | 84 | 348 | 9.2e-<br>13 | (AC002<br>505)<br>SF16<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 165029 | ATU026<br>969 | ATL8S1<br>4049:4<br>6..594 | nap |  |  |  | ATL8S1<br>4049:4<br>6..579      | 0.88 | g46317       | 84 | 308 | 3.8e-<br>23 | (X6910<br>5)<br>ORF1<br>[Sinor<br>hizobi<br>um<br>mellilo<br>ti]                       |
| 165030 | ATU026<br>970 | ATL8C5<br>902:71<br>..819  | nap |  |  |  | ATL8C5<br>902:71<br>..812       | 0.86 | g45859<br>24 | 84 | 733 |             | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165031 | ATU026<br>971 | ATL8C3<br>6550:1           | nap |  |  |  | ATL8C3<br>6550:1                | 0.85 | g11700<br>94 | 84 | 404 | 2.2e-<br>53 | GLUTAT<br>HIONE  |

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|--------|---------------|---------------------------------|-----|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|--|--|--|
| 165032 | ATU026<br>972 | ..636                           |     |  |  |  |  | 70..63<br>6 |  |  |  |  |  |  |  |  |  |  |  | S-<br>TRANSE<br>RASE<br>(CLASS<br>-PHI)<br>(25 KD<br>AUXIN-<br>BINDIN<br>G<br>PROTEI<br>N)<br>[Hyosc<br>yamus<br>muticu<br>s]                          |
|        |               |                                 |     |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  | (AF011<br>544)<br>YecD<br>[Bacil<br>lus<br>subtil<br>is]   |
| 165033 | ATU026<br>973 | ATL8S2<br>3738:1<br>71..44<br>5 | nap |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  | 2.0e-<br>06<br>114<br>84<br>g24655<br>65<br>0.84<br>ATL8S2<br>3738:1<br>71..40<br>8  |
|        |               |                                 |     |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  | 3.2e-<br>273<br>3042<br>84<br>g33193<br>60<br>0.81,<br>0.81<br>ATL8C2<br>28:186<br>6..333<br>4,<br>ATL8C2<br>28:376<br>8..565<br>2                     |
|        |               |                                 |     |  |  |  |  |             |  |  |  |  |  |  |  |  |  |  |  | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 165034 | ATU026<br>974 | ATL8C4<br>9279:3<br>455..1<br>578 | nap |  |  |  |  | ATL8C4<br>9279:3<br>102..1<br>578 | 0.81 | g45393<br>51 | 84 | 876 | 8.5e-<br>87 | dopsis<br>thalia<br>na]<br>(AL035<br>539)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 165035 | ATU026<br>975 | ATL8C4<br>4417:9<br>43..1         | nap |  |  |  |  | ATL8C4<br>4417:9<br>43..25<br>4   | 0.81 | g17070<br>19 | 84 | 937 | 5.5e-<br>81 | (U7872<br>1)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165036 | ATU026<br>976 | ATL8C3<br>4968:1<br>..1085        | nap |  |  |  |  | ATL8C3<br>4968:8<br>4..105<br>0   | 0.80 | g33353<br>44 | 84 | 929 | 3.2e-<br>72 | (AC004<br>512)<br>Simila<br>r to<br>serpin<br>gene<br>homolo<br>g<br>gb Z49<br>890<br>from<br>A.<br>thalia<br>na.<br>[Arabi<br>dopsis<br>thalia |

|        |               |                            |     |  |  |  |  |               |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------|--------------|----|------|--------------|---|
| 165037 | ATU026<br>977 | ATL8C4<br>3566:1<br>..2313 | nap |  |  |  | ATL8C4<br>3566:2<br>09..20<br>17                                     | 0.79          | g46462<br>03 | 84 | 1105 |              | na]<br>(AC007<br>230)<br>Belong<br>s to<br>PF 000<br>26<br>Eukary<br>otic<br>aspart<br>yl<br>protea<br>se<br>family<br>.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165038 | ATU026<br>978 | ATL8C3<br>3485:3<br>202..1 | nap |  |  |  | ATL8C3<br>3485:2<br>09..15<br>,<br>ATL8C3<br>3485:2<br>707..2<br>482 | 0.79,<br>0.92 | g45570<br>78 | 84 | 2017 | 2.2e-<br>218 | (AC007<br>045)<br>putati<br>ve<br>Tall-1<br>pol<br>polypr<br>oteins,<br>5,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 165039 | ATU026<br>979 | ATL8S1<br>2283:5<br>2..538 | nap |  |  |  | ATL8S1<br>2283:5<br>2..509   | 0.78          | g15242<br>50 | 84 | 516  | 8.7e-<br>49  | (Z7970<br>1)<br>hypoth<br>etical<br>protei<br>n   |

|        |               |                                  |     |  |  |  |  |  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|------|--------------|----|------|--------------|--|
| 165040 | ATU026<br>980 | ATL8C3<br>0588:1<br>742..1       | nap |  |  |  |  |  | 0.76 | g34618<br>49 | 84 | 841  | 4.0e-<br>65  | RV1503<br>C<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]                                   |
|        |               |                                  |     |  |  |  |  |  |      |              |    |      |              | (AC005<br>315)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 165041 | ATU026<br>981 | ATL8C1<br>0932:8<br>78..30<br>23 | nap |  |  |  |  |  | 0.76 | g18175<br>44 | 84 | 1452 | 2.0e-<br>142 | (D8302<br>5)<br>prolin<br>e<br>oxidas<br>e<br>precur<br>sor<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |  |      |              |    |      |              |  |
| 165042 | ATU026<br>982 | ATL8C3<br>7499:2<br>87..22<br>67 | nap |  |  |  |  |  | 0.75 | g28275<br>28 | 84 | 617  |              | (AL021<br>633)<br>predic<br>ted<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
|        |               |                                  |     |  |  |  |  |  |      |              |    |      |              |  |





|        |               |                                  |     |  |  |  |   |               |   |                      |                             |  | thalia<br>nal  |
|--------|---------------|----------------------------------|-----|--|--|--|---|---------------|---|----------------------|-----------------------------|--|--|
| 165045 | ATU026<br>985 | ATL8C1<br>3798:1<br>806..7<br>02 | nap |  |  |  | ATL8C1<br>3798:1<br>534..7<br>02                              | 0.63          | g45859<br>67  | 84                   | 853                         | 7.4e-<br>71  | (AC005<br>287)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]    |
| 165046 | ATU026<br>986 | ATL8C1<br>9895:8<br>27..17<br>16 | nap |  |  |  | ATL8C1<br>9895:8<br>27..16<br>47                              | 0.61          | g28275<br>43  | 84                   | 690                         | 1.2e-<br>70  | (AL021<br>635)<br>predic<br>ted<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]       |
| 165047 | ATU026<br>987 | ATL8C1<br>4428:1<br>..4416       | nap |  |  |  | ATL8C1<br>4428:2<br>01..44<br>16                              | 0.61          | g36458<br>99  | 84                   | 4056                        | 0.0  | (U6840<br>8) 5'<br>end<br>not<br>determ<br>ined<br>experi<br>mental<br>ly<br>[Zea<br>mays] |
| 165048 | ATU026<br>988 | ATL8C1<br>0484:2<br>718..1       | nap |  |  |  | ATL8C1<br>0484:6<br>60..28<br>,<br>ATL8C1<br>0484:2<br>498..1 | 0.57,<br>0.84 | g46894<br>52,<br>g46462<br>26,<br>g32427<br>11,<br>g40380 | 84,<br>49,<br>49, 32 | 738,<br>490,<br>463,<br>194 | (AC006<br>267)<br>putati<br>ve<br>transp<br>oson<br>protei |  |

[illegible]

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|---|
| 165050 | ATU026<br>990 | ATL8C4<br>0703:1<br>88..16<br>94 | nap |  |  |  |  | ATL8C4<br>0703:1<br>88..15<br>68 | 0.53 | g36458<br>98 | 84 | 2267 | 1.9e-<br>201 | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possibly a<br>post-<br>transp<br>osition<br>mutati<br>on<br>[Zea<br>mays] | lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165051 | ATU026<br>991 | ATL8C4<br>7669:1<br>505..8<br>0  | nap |  |  |  |  | ATL8C4<br>7669:1<br>416..8<br>0  | 0.51 | g40289<br>70 | 84 | 685  | 8.4e-<br>76  | (AF060<br>248)<br>pollen<br>less3<br>[Arabi<br>dopsis<br>thalia<br>nal]  |   |
| 165052 | ATU026<br>992 | ATL8C4<br>5299:1<br>77..77<br>3  | nap |  |  |  |  | ATL8C4<br>5299:1<br>77..77<br>3  | 0.49 | g41057<br>94 | 84 | 219  | 5.3e-<br>27  | (AF049<br>928)<br>PGP224<br>[Petun<br>ia x<br>hybrid<br>al]  |   |
| 165053 | ATU026<br>993 | ATL8C3<br>6069:2<br>393..6<br>89 | nap |  |  |  |  | ATL8C3<br>6069:1<br>902..6<br>89 | 0.48 | g44328<br>08 | 84 | 1730 | 2.0e-<br>179 | (AC006<br>570)<br>hypothesis<br>etical   |   |

|        |               |                                  |     |  |  |  |  |                                  |      |  |  |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--|--|--------------|----|-----|-------------|--|
| 165054 | ATU026<br>994 | ATL8S2<br>4869:1<br>..423        | nap |  |  |  |  | ATL8S2<br>4869:1<br>21..42<br>3  | 0.47 |  |  | g28268<br>77 | 84 | 370 | 2.2e-<br>33 | (Y1631<br>1)<br>Jag-<br>like<br>protei<br>n<br>[Strep<br>tomyce<br>s<br>coelic<br>olor]                        |
| 165055 | ATU026<br>995 | ATL8C2<br>5641:1<br>..417        | nap |  |  |  |  | ATL8C2<br>5641:1<br>03..29<br>4  | 0.47 |  |  | g44572<br>21 | 84 | 142 | 1.5e-<br>11 | (AF127<br>797)<br>putati<br>ve<br>bZIP<br>DNA-<br>bindin<br>g<br>protei<br>n<br>[Capsi<br>cum<br>chinen<br>se] |
| 165056 | ATU026<br>996 | ATL8C2<br>778:47<br>89..41<br>26 | nap |  |  |  |  | ATL8C2<br>778:46<br>86..41<br>26 | 0.47 |  |  | g46783<br>74 | 84 | 923 | 4.6e-<br>57 | (AL049<br>656)<br>myb-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia]                                   |

|        |               |                            |     |  |  |  |                                  |      |  |               |                       |   |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--|---------------|-----------------------|---|--|
| 165057 | ATU026<br>997 | ATL8C2<br>1783:2<br>462..1 | nap |  |  |  | ATL8C2<br>1783:1<br>146..1<br>01 | 0.46 | g47739<br>20,<br>g47739<br>08,<br>g47739<br>12 | 84,<br>67, 31 | 2601,<br>1997,<br>134 | 4.0e-<br>237,<br>2.4e-<br>170,<br>2.2e-<br>08 | na]<br>(AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165058 | ATU026<br>998 | ATL8C2<br>7686:1<br>313..1 | nap |  |  |  | ATL8C2<br>7686:1<br>298..7<br>0  | 0.45 | g33282<br>40                                   | 84            | 711                   |   | (AF064<br>775)<br>early<br>nodule<br>-<br>specif   |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165059 | ATU026<br>999 | ATL8C3<br>1893:4<br>263..1      | nap |  |  |  |  | ATL8C3<br>1893:4<br>263..4<br>17 | 0.44 | g47738<br>81 | 84 | 3991 | 0.0          | ic<br>protei<br>n<br>[Medic<br>ago<br>trunca<br>tula]<br>(AF076<br>243)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165060 | ATU027<br>000 | ATL8C2<br>7951:2<br>48..71<br>1 | nap |  |  |  |  | ATL8C2<br>7951:2<br>68..63<br>9  | 0.43 | g28326<br>47 | 84 | 439  |              | (AL021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165061 | ATU027<br>001 | ATL8C6<br>81:118<br>8..320      | nap |  |  |  |  | ATL8C6<br>81:110<br>3..395       | 0.43 | g45080<br>79 | 84 | 1054 | 2.7e-<br>93  | (AC005<br>882)<br>66284<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165062 | ATU027<br>002 | ATL8C3<br>2905:1<br>..2173      | nap |  |  |  |  | ATL8C3<br>2905:1<br>22..21<br>73 | 0.43 | g36953<br>97 | 84 | 1605 | 3.8e-<br>143 | (AF096<br>372)<br>No<br>defini  |

[illegible]

|        |               |                                  |     |  |  |  |  |  |  |  |              |    |     |             |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|--|
| 165063 | ATU027<br>003 | ATL8C1<br>2600:8<br>54..1        | nap |  |  |  |  |  |  |  | g46789<br>26 | 84 | 519 | 3.7e-<br>48 | (AL049<br>711)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] | tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165064 | ATU027<br>004 | ATL8C4<br>0198:1<br>..538        | nap |  |  |  |  |  |  |  | g40380<br>66 | 84 | 322 | 3.4e-<br>10 | (AC005<br>897)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] | tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165065 | ATU027<br>005 | ATL8C2<br>4620:1<br>..1062       | nap |  |  |  |  |  |  |  | g12840<br>5  | 84 | 466 | 1.6e-<br>40 | (NODULI<br>N 21<br>(N-21)<br>[Glyci<br>ne<br>max]                                  | tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165066 | ATU027<br>006 | ATL8C1<br>2337:5<br>72..15<br>41 | nap |  |  |  |  |  |  |  | g12840<br>5  | 84 | 439 | 7.2e-<br>40 | (NODULI<br>N 21<br>(N-21)<br>[Glyci<br>ne<br>max]                                  | tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165067 | ATU027        | ATL8C4                           | nap |  |  |  |  |  |  |  | g28275       | 84 | 487 | 3.8e-       | (AL021)  | tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |                        |                                 |     |  |  |  |  |              |    |     |  |         |  |
|--------|------------------------|---------------------------------|-----|--|--|--|--|--------------|----|-----|--|---------|--|
| 007    | 6201:8<br>87..13<br>49 |                                 |     |  |  |  |  | 31           |    |     |  | 31      | hypothetical protein [Arabidopsis thaliana]                |
| 165068 | ATU027<br>008          | ATL8C4<br>2508:1<br>..647       | nap |  |  |  |  | g47739<br>12 | 84 | 656 |  | 4.7e-60 | (AF147259) No definition line found [Arabidopsis thaliana] |
| 165069 | ATU027<br>009          | ATL8C4<br>9731:3<br>51..57<br>9 | nap |  |  |  |  | g19073<br>31 | 84 | 113 |  | 7.1e-08 | (U87316) orf1; putative [Methylobacterium extorquens]      |
| 165070 | ATU027<br>010          | ATL8C5<br>423:1.<br>.909        | nap |  |  |  |  | g45389<br>69 | 84 | 501 |  | 2.8e-53 | (AL049488) putative protein [Arabidopsis thaliana]         |











|        |               |                                  |     |  |  |  |  |  |  |                                  |      |  |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--|--------------|----|-----|-------------|--|
| 165084 | ATU027<br>024 | ATL8C2<br>4128:4<br>87..1        | nap |  |  |  |  |  |  | ATL8C2<br>4128:4<br>45..28<br>6  | 0.95 |  | g36872<br>48 | 83 | 286 | 3.4e-<br>28 | s<br>coelic<br>olor]<br>(AC005<br>169)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165085 | ATU027<br>025 | ATL8C1<br>1237:1<br>649..4<br>84 | nap |  |  |  |  |  |  | ATL8C1<br>1237:1<br>536..5<br>16 | 0.94 |  | g23985<br>25 | 83 | 579 | 2.7e-<br>66 | (Y1372<br>2)<br>Transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 165086 | ATU027<br>026 | ATL8C9<br>750:1.<br>.1693        | nap |  |  |  |  |  |  | ATL8C9<br>750:62<br>..1673       | 0.93 |  | g45080<br>68 | 83 | 126 | 2.3e-<br>06 | (AC005<br>882)<br>3063<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165087 | ATU027<br>027 | ATL8C6<br>765:63<br>4..1         | nap |  |  |  |  |  |  | ATL8C6<br>765:61<br>3..13        | 0.93 |  | g24629<br>36 | 83 | 711 | 6.5e-<br>62 | (Y1232<br>1)<br>open<br>readin<br>g<br>frame<br>2<br>[Brass<br>ica<br>olerac                                   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165088 | ATU027<br>028 | ATL8C2<br>4179:1<br>952..3<br>59 | nap |  |  |  | ATL8C2<br>4179:1<br>591..3<br>59 | 0.92 | g38941<br>89 | 83 | 722  | 2.2e-<br>75  | (AC005<br>662)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 165089 | ATU027<br>029 | ATL8C4<br>0210:1<br>102..1       | nap |  |  |  | ATL8C4<br>0210:1<br>102..2<br>62 | 0.91 | g36953<br>97 | 83 | 1454 | 7.0e-<br>101 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165090 | ATU027<br>030 | ATL8C4<br>4452:1<br>..886        | nap |  |  |  | ATL8C4<br>4452:5<br>4..818       | 0.89 | g34027<br>12 | 83 | 574  | 1.0e-<br>38  | (AC004<br>261)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 165091 | ATU027<br>031 | ATL8C3<br>4201:8<br>8..155<br>0  | nap |  |  |  | ATL8C3<br>4201:1<br>13..15<br>35 | 0.89 | g39803<br>78 | 83 | 1042 | 8.7e-<br>116 | (AC004<br>561)<br>putati<br>ve RNA<br>bindin<br>g<br>protei<br>n                             |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 165092 | ATU027<br>032 | ATL8C2<br>6444:2<br>06..93<br>7 | nap |  |  |  |  | ATL8C2<br>6444:2<br>74..75<br>7 | 0.87 | g23410<br>39 | 83 | 447 | 6.8e-<br>43 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC000<br>104)<br>Simila<br>r to<br>Nicoti<br>ana<br>lesion<br>-<br>induci<br>ng ORF<br>(gb U6<br>6269).<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165093 | ATU027<br>033 | ATL8C7<br>882:67<br>..1044      | nap |  |  |  |  | ATL8C7<br>882:67<br>..988       | 0.85 | g43773<br>15 | 83 | 169 | 2.4e-<br>18 | (AE001<br>679)<br>ytgB-<br>like<br>predic<br>ted<br>rRNA<br>methyl<br>ase<br>[Chlam<br>ydia<br>pneumo<br>niae]   |
| 165094 | ATU027<br>034 | ATL8C3<br>1127:2<br>664..1<br>0 | nap |  |  |  |  | ATL8C3<br>1127:2<br>590..1<br>0 | 0.85 | g13467<br>04 | 83 | 410 | 2.8e-<br>40 | POLYGA<br>LACTUR<br>ONASE<br>PRECUR<br>SOR<br>(PG)<br>(PECTI   |

|        |               |                                 |     |  |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165095 | ATU027<br>035 | ATL8C2<br>7234:1<br>056..1      | nap |  |  |  |  |  |  | ATL8C2<br>7234:7<br>43..18       | 0.84 | g44328<br>16 | 83 | 1240 | 3.0e-<br>99  | (AC006<br>593)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165096 | ATU027<br>036 | ATL8C4<br>7559:2<br>230..1      | nap |  |  |  |  |  |  | ATL8C4<br>7559:2<br>230..1<br>30 | 0.83 | g32427<br>11 | 83 | 2544 | 8.0e-<br>213 | (AC003<br>040)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165097 | ATU027<br>037 | ATL8C4<br>7498:2<br>237..8<br>5 | nap |  |  |  |  |  |  | ATL8C4<br>7498:2<br>078..8<br>5  | 0.83 | g25058<br>84 | 83 | 1512 | 4.3e-<br>166 | (Y1277<br>6)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165098 | ATU027<br>038 | ATL8C1<br>3121:1<br>..1479      | nap |  |  |  |  |  |  | ATL8C1<br>3121:3<br>01..14<br>22 | 0.83 | g31830<br>77 | 83 | 232  | 8.0e-<br>09  | PROBAB<br>IE<br>1,4-<br>DIHYDR<br>OXY-2-<br>NAPHTH                                     |



|        |               |                            |     |  |  |  |  |                                 |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|---|
| 165099 | ATU027<br>039 | ATL8C3<br>0127:1<br>..4274 | nap |  |  |  |  | ATL8C3<br>0127:6<br>5..386<br>9 | 0.81 | g46461<br>95 | 83 | 3044 | 8.5e-<br>295 | OATE<br>OCTAPR<br>ENYLTR<br>ANSFER<br>ASE<br>(DHNA-<br>OCTAPR<br>ENYLTR<br>ANSFER<br>ASE)<br>[Synec<br>hocyst<br>is<br>sp.] |
| 165100 | ATU027<br>040 | ATL8C2<br>6482:1<br>465..1 | nap |  |  |  |  | ATL8C2<br>6482:1<br>417..8<br>9 | 0.77 | g39351<br>58 | 83 | 910  | 1.2e-<br>79  | (AC004<br>557)<br>F17L21<br>.1<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165101 | ATU027<br>041 | ATL8S3<br>0952:4<br>91..47 | nap |  |  |  |  | ATL8S3<br>0952:4<br>45..10<br>2 | 0.76 | g26330<br>05 | 83 | 96   | 1.6e-<br>07  | (Z9910<br>7)<br>altern<br>ate<br>gene<br>name:<br>yeen,<br>yfxC,<br>yfxD;   |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |     |  |  |  |  |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|--|--|--|--|
| 165102 | ATU027<br>042 | ATL8C5<br>899:23<br>17..1  | nap |  |  |  |  | ATL8C5<br>899:23<br>17..79<br>0  | 0.76 | g24355<br>17 | 83 | 747 |  |  |  | similar to hypothetical protein [Bacillus subtilis] (AF024504) contains similarity to peptidase family A1 [Arabidopsis thaliana] |
| 165103 | ATU027<br>043 | ATL8C3<br>7164:1<br>..1571 | nap |  |  |  |  | ATL8C3<br>7164:1<br>97..15<br>71 | 0.75 | g45811<br>58 | 83 | 268 |  |  |  | (AC006919) putative DNA binding protein with homeobox domain [Arabidopsis thaliana]  |

|        |               |                                   |     |  |  |  |                                   |      |                               |        |             |                             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|---|
| 165104 | ATU027<br>044 | ATL8C1<br>0988:8<br>95..1         | nap |  |  |  | ATL8C1<br>0988:8<br>95..11<br>3   | 0.72 | g28276<br>49                  | 83     | 147         | 1.5e-<br>08                 | (AL021<br>637)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 165105 | ATU027<br>045 | ATL8C3<br>5369:1<br>..2662        | nap |  |  |  | ATL8C3<br>5369:1<br>399..2<br>662 | 0.70 | g32985<br>43                  | 83     | 752         | 1.1e-<br>50                 | (AC004<br>681)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 165106 | ATU027<br>046 | ATL8C4<br>3966:1<br>..1218        | nap |  |  |  | ATL8C4<br>3966:8<br>0..675        | 0.69 | g34026<br>90                  | 83     | 584         |                             | (AC004<br>697)<br>hypoth<br>etical<br>protei<br>n, 3'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165107 | ATU027<br>047 | ATL8C4<br>4686:7<br>994..6<br>186 | nap |  |  |  | ATL8C4<br>4686:7<br>889..6<br>502 | 0.69 | g33778<br>35,<br>g41274<br>17 | 83, 32 | 404,<br>393 | 4.4e-<br>39,<br>6.5e-<br>38 | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid  |



|        |               |                                 |     |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 165110 | ATU027<br>050 | 15..20<br>8                     | nap |  |  |  | 08..26<br>0                     | 0.65 | g30252<br>38 | 83 | 174 | 8.3e-<br>14 | putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               | ATL8S3<br>437:49<br>0..1        |     |  |  |  | ATL8S3<br>437:49<br>0..198      |      |              |    |     |             | HYPOTH<br>ETICAL<br>OXIDOR<br>EDUCTA<br>SE IN<br>MEAA<br>3'REGI<br>ON<br>(ORFC)<br>[Methy<br>lobact<br>erium<br>extorq<br>uens] |
| 165111 | ATU027<br>051 | ATL8C1<br>0790:1<br>728..5<br>4 | nap |  |  |  | ATL8C1<br>0790:5<br>67..18<br>2 | 0.64 | g38941<br>76 | 83 | 108 | 5.2e-<br>10 | (AC005<br>312)<br>putati<br>ve NAM<br>(no<br>apical<br>merist<br>em)<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 165112 | ATU027<br>052 | ATL8S8<br>492:23<br>5..1        | nap |  |  |  | ATL8S8<br>492:98<br>..45        | 0.63 | g28800<br>53 | 83 | 158 | 8.4e-<br>12 | (AC002<br>340)<br>hypoth<br>etical  |

|        |               |                            |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 165113 | ATU027<br>053 | ATL8C4<br>2534:7<br>77..12 | nap |  |  |  |  | ATL8C4<br>2534:4<br>70..28<br>8 | 0.63 | g46782<br>10 | 83 | 555 | 4.8e-<br>50 | (AC007<br>134)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>nal] |
| 165114 | ATU027<br>054 | ATL8C1<br>1473:1<br>..872  | nap |  |  |  |  | ATL8C1<br>1473:4<br>97..84<br>7 | 0.61 | g40975<br>28 | 83 | 224 | 1.0e-<br>20 | (U6389<br>8)<br>AppB<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>nal]               |
| 165115 | ATU027<br>055 | ATL8S2<br>6233:4<br>99..57 | nap |  |  |  |  | ATL8S2<br>6233:4<br>09..25<br>0 | 0.60 | g45859<br>30 | 83 | 361 | 4.3e-<br>35 | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>nal] |
| 165116 | ATU027<br>056 | ATL8C6<br>594:1.<br>.342   | nap |  |  |  |  | ATL8C6<br>594:11<br>5..327      | 0.60 | g23985<br>31 | 83 | 142 | 3.0e-<br>09 | (Y1372<br>6)<br>Transc<br>riptio<br>n  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165117 | ATU027<br>057 | ATL8C2<br>2864:4<br>589..1       | nap |  |  |  |  |  | ATL8C2<br>2864:4<br>589..6<br>04 | 0.58 | g25650<br>07 | 83 | 2912 | 9.8e-<br>284 | factor<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC002<br>983)<br>predic<br>ted<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 165118 | ATU027<br>058 | ATL8C5<br>191:50<br>75..23<br>44 | nap |  |  |  |  |  | ATL8C5<br>191:49<br>04..23<br>44 | 0.57 | g33778<br>30 | 83 | 1967 | 1.2e-<br>177 | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Aplysi<br>a<br>califo<br>rnica<br>interm<br>ediate<br>filame<br>nt<br>protei<br>n A<br>(GB:X6<br>0297)<br>[Arabi<br>dopsis<br>thalia<br>nal] |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 165119 | ATU027<br>059 | ATL8C3<br>0974:2<br>788..1<br>348 | nap |  |  |  | ATL8C3<br>0974:2<br>503..1<br>348 | 0.55 | g40068<br>20 | 83 | 1847 | 7.5e-<br>194 | (AC005<br>970)<br>putati<br>ve<br>serine<br>carbox<br>ypepti<br>dase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165120 | ATU027<br>060 | ATL8C2<br>4357:1<br>..3891        | nap |  |  |  | ATL8C2<br>4357:1<br>50..38<br>91  | 0.53 | g33193<br>60 | 83 | 3170 | 6.3e-<br>241 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165121 | ATU027<br>061 | ATL8C1<br>89:663<br>8..374        | nap |  |  |  | ATL8C1<br>89:651<br>2..446        | 0.51 | g43097<br>63 | 83 | 4121 |              | (AC006<br>217)<br>putati<br>ve<br>retrot<br>ranspo<br>son   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |   |
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| 165122 | ATU027<br>062 | ATL8C4<br>3344:2<br>07..42<br>65 | nap |  |  |  |  | ATL8C4<br>3344:2<br>07..41<br>92 | 0.48 | g44552<br>03 | 83 | 839  |              |  | polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165123 | ATU027<br>063 | ATL8C1<br>671:41<br>83..13<br>18 | nap |  |  |  |  | ATL8C1<br>671:40<br>36..15<br>90 | 0.47 | g33193<br>60 | 83 | 2553 | 2.7e-<br>283 |  | (AL035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165124 | ATU027<br>064 | ATL8S2<br>5543:5<br>87..30       | nap |  |  |  |  | ATL8S2<br>5543:4<br>96..48       | 0.47 | g10017<br>61 | 83 | 471  | 2.3e-<br>43  |  | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  | (D6400<br>4)<br>phosph  |

|        |               |                           |     |  |  |  |  |  |      |              |    |     |             |   |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|------|--------------|----|-----|-------------|---|---|
| 165125 | ATU027<br>065 | ATL8C3<br>4623:1<br>..644 | nap |  |  |  |  |  | 0.46 | g45726<br>67 | 83 | 369 | 1.9e-<br>37 | (AC006<br>954)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    | oribos<br>yl<br>formyl<br>glycin<br>amidin<br>e<br>syntha<br>se<br>[Synec<br>hocyst<br>is<br>sp.]         |
| 165126 | ATU027<br>066 | ATL8S8<br>342:1.<br>.436  | nap |  |  |  |  |  | 0.41 | g39258<br>19 | 83 | 287 | 2.0e-<br>24 | (AB020<br>211)<br>unname<br>d<br>protei<br>n<br>produc<br>t<br>[Roseo<br>bacter<br>denitr<br>ifican<br>s] | (AB020<br>211)<br>unname<br>d<br>protei<br>n<br>produc<br>t<br>[Roseo<br>bacter<br>denitr<br>ifican<br>s] |
| 165127 | ATU027<br>067 | ATL8C3<br>8792:4<br>97..1 | nap |  |  |  |  |  |      | g31842<br>87 | 83 | 151 | 0.0017      | (AC004<br>136)<br>revers<br>e-<br>transc  | (AC004<br>136)<br>revers<br>e-<br>transc  |

|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |      |             |   |
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| 165128 | ATU027<br>068 | ATL8C2<br>4692:1<br>596..1       | nap |  |  |  |  |  |  |  |  | g45859<br>33 | 83 | 154  | 1.2e-<br>14 | (AC007<br>211)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 165129 | ATU027<br>069 | ATL8C1<br>0174:2<br>817..5<br>19 | nap |  |  |  |  |  |  |  |  | g45811<br>64 | 83 | 1470 |             | (AC006<br>220)<br>putati<br>ve<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165130 | ATU027<br>070 | ATL8C1<br>9893:1<br>..959        | nap |  |  |  |  |  |  |  |  | g28275<br>43 | 83 | 669  | 1.2e-<br>63 | (AL021<br>635)<br>predic<br>ted<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 165131 | ATU027<br>071 | ATL8C7<br>633:11                 | nap |  |  |  |  |  |  |  |  | g45858<br>81 | 83 | 737  | 3.0e-<br>82 | (AC005<br>850)  |

|        |               |                                   |     |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 165132 | ATU027<br>072 | ATL8C4<br>9438:4<br>291..2<br>368 | nap |  |  |  |  |  |  |  | g47339<br>64 | 83 | 2235 | 3.1e-<br>227 | (AC007<br>261)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 165133 | ATU027<br>073 | ATL8C1<br>9372:1<br>545..1        | nap |  |  |  |  |  |  |  | g45672<br>96 | 83 | 1853 | 6.5e-<br>150 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165134 | ATU027<br>074 | ATL8S3<br>0599:1<br>..299         | nap |  |  |  |  |  |  |  | g77341<br>4  | 83 | 189  | 6.4e-<br>16  | (U2375<br>1)<br>beta<br>galact<br>osidas<br>e<br>[Cloni<br>ng  |











|        |               |                                   |     |  |  |  |  |  |  |  |                           |              |    |      |              |  |
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| 165148 | ATU027<br>088 | 8..445                            | nap |  |  |  |  |  |  |  |                           | g45444<br>46 | 83 | 389  | 2.5e-<br>35  | (AC006<br>592)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165149 | ATU027<br>089 | ATL8C2<br>2396:5<br>82..11<br>81  | nap |  |  |  |  |  |  |  | ATL8S9<br>160:79<br>..294 | 1.00         | 82 | 142  | 0.9998       | prolin<br>e-rich<br>protei<br>n MP3<br>-<br>mouse<br>(fragm<br>ent)<br>[]              |
| 165150 | ATU027<br>090 | ATL8C1<br>0766:6<br>958..1<br>254 | nap |  |  |  |  |  |  |  |                           |              | 83 | 1358 | 8.7e-<br>154 | (AL021<br>687)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 165151 | ATU027<br>091 | ATL8S1<br>4427:5<br>44..26        | nap |  |  |  |  |  |  |  |                           |              | 83 | 297  | 6.9e-<br>23  | (AL022<br>075)<br>hypoth   |

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| 165152 | ATU027<br>092 | ATL8C4<br>6242:1<br>..783        | nap |  |  |  |  |  |  |  |  | g22449<br>60 | 83 | 692  | 3.5e-<br>94  | (Z9734<br>0)<br>simila<br>rity<br>to<br>copia-<br>like<br>retrot<br>ranspo<br>son<br>[Arabi<br>dopsis<br>thalia<br>na]    | etical<br>protei<br>n<br>Rv3588<br>c<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 165153 | ATU027<br>093 | ATL8C1<br>5217:3<br>839..3<br>57 | nap |  |  |  |  |  |  |  |  | g43097<br>67 | 83 | 2683 | 1.8e-<br>260 | (AC006<br>217)<br>putati<br>ve<br>Athila<br>retrooe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 165154 | ATU027        | ATL8C3                           | nap |  |  |  |  |  |  |  |  | g31282       | 83 | 198  | 2.1e-        | (AC004  |   |

| 094    | 912:1.<br>.463 |                           |     |  |  |  |  |  | 15   | 23           | 077)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |      |              |  |
|--------|----------------|---------------------------|-----|--|--|--|--|--|------|--------------|--|------|--------------|--|
| 165155 | ATU027<br>095  | ATL8C8<br>389:1.<br>.957  | nap |  |  |  |  |  | 0.98 | g39280<br>96 | 82   | 1532 | 7.6e-<br>151 | (AC005<br>770)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 165156 | ATU027<br>096  | ATL8S1<br>1513:1<br>..583 | nap |  |  |  |  |  | 0.97 | g17365<br>03 | 82   | 588  | 1.0e-<br>56  | (D9082<br>8)<br>Hollid<br>ay<br>juncti<br>on DNA<br>helica<br>se<br>RuvB.<br>[Esche<br>richia<br>coli] |
| 165157 | ATU027<br>097  | ATL8C3<br>7961:1<br>..928 | nap |  |  |  |  |  | 0.97 | g43143<br>66 | 82   | 727  | 1.7e-<br>66  | (AC006<br>340)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia                        |

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| 165158 | ATU027<br>098 | ATL8C2<br>0873:1<br>..945        | nap |  |  |  | ATL8C2<br>0873:5<br>6..945       | 0.96 | g39414<br>36 | 82 | 623  | 9.3e-<br>55  | na]<br>(AF062<br>872)<br>putati<br>ve<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165159 | ATU027<br>099 | ATL8C4<br>3600:1<br>526..3<br>03 | nap |  |  |  | ATL8C4<br>3600:1<br>526..6<br>10 | 0.94 | g29613<br>53 | 82 | 1546 |              | AL022<br>140)<br>pectat<br>e<br>lyase<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 165160 | ATU027<br>100 | ATL8C2<br>9246:1<br>..947        | nap |  |  |  | ATL8C2<br>9246:1<br>48..94<br>7  | 0.93 | g38057<br>63 | 82 | 1505 | 8.3e-<br>140 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 165161 | ATU027<br>101 | ATL8C2<br>6834:1<br>..635        | nap |  |  |  | ATL8C2<br>6834:6<br>5..575       | 0.91 | g42204<br>82 | 82 | 542  | 2.0e-<br>56  | (AC006<br>069)<br>hypoth<br>etical<br>protei  |



|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 165164 | ATU027<br>104 | ATL8C5<br>445:45<br>6..624<br>8   | nap |  |  |  |  |  | ATL8C5<br>445:45<br>6..621<br>4   | 0.83 | g21911<br>95 | 82 | 2550 | 4.2e-<br>226 | (AF007<br>271)<br>contai<br>ns<br>simila<br>rity<br>to T.<br>cruzi<br>3' end<br>fragme<br>nt<br>(PID:9<br>161956<br>)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165165 | ATU027<br>105 | ATL8C1<br>1779:1<br>301..3<br>917 | nap |  |  |  |  |  | ATL8C1<br>1779:1<br>301..3<br>604 | 0.82 | g45196<br>71 | 82 | 251  | 1.3e-<br>11  | (AB017<br>693)<br>transf<br>actor<br>[Nicot<br>iana<br>tabacu<br>m]   |
| 165166 | ATU027<br>106 | ATL8C2<br>332:1.<br>.692          | nap |  |  |  |  |  | ATL8C2<br>332:21<br>9..606        | 0.80 | g42630<br>50 | 82 | 316  | 9.4e-<br>34  | (AC005<br>142)<br>putati<br>ve<br>noduli<br>n<br>[Arabi<br>dopsis<br>nal]   |

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| 165167 | ATU027<br>107 | ATL8S1<br>4228:1<br>..400  | nap |  |  |  | ATL8S1<br>4228:9<br>2..382      | 0.79 | g27915<br>88 | 82 | 117 | 1.3e-<br>09 | thalia<br>nal<br>(AL021<br>287)<br>hypoth<br>etical<br>protei<br>n<br>Rv2991<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 165168 | ATU027<br>108 | ATL8C4<br>3403:1<br>902..1 | nap |  |  |  | ATL8C4<br>3403:1<br>902..3<br>1 | 0.74 | g47591<br>00 | 82 | 118 |             | splici<br>ng<br>factor<br>,<br>argini<br>ne/ser<br>ine-<br>rich<br>11<br>[Homo<br>sapien<br>s]                                  |
| 165169 | ATU027<br>109 | ATL8S1<br>7142:4<br>90..1  | nap |  |  |  | ATL8S1<br>7142:4<br>81..14      | 0.73 | g24940<br>28 | 82 | 169 | 3.1e-<br>14 | PUTATI<br>VE D-<br>ALANIN<br>E--D-<br>ALANIN<br>E<br>LIGASE<br>(D-<br>ALANYL<br>ALANIN<br>E<br>SYNTHE<br>TASE)                  |

|        |               |                            |     |  |  |  |  |  |  |               |              |    |      |              |   |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|---------------|--------------|----|------|--------------|---|--|
| 165170 | ATU027<br>110 | ATL8C1<br>7008:1<br>..2120 | nap |  |  |  |  |  | ATL8C1<br>7008:5<br>0..821<br>,<br>ATL8C1<br>7008:1<br>313..2<br>120 | 0.72,<br>0.51 | g36953<br>95 | 82 | 2192 | 3.9e-<br>198 | (AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>e<br>(Pfam:<br>PF0007<br>8 rvt,<br>E=4.3e<br>-08)<br>[Arabi<br>dopsis<br>thalia<br>na] | [Strep<br>tococc<br>us<br>mutans<br>]  |
| 165171 | ATU027<br>111 | ATL8C2<br>3935:1<br>..967  | nap |  |  |  |  |  | ATL8C2<br>3935:7<br>1..878   | 0.71          | g42204<br>70 | 82 | 364  | 1.4e-<br>23  | (AC006<br>069)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  | (AC006<br>069)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165172 | ATU027<br>112 | ATL8C3<br>0518:1<br>..1872 | nap |  |  |  |  |  | ATL8C3<br>0518:1<br>7..187<br>2                                      | 0.70          | g45388<br>96 | 82 | 1628 | 4.4e-<br>176 | (AL049<br>482)<br>putati<br>ve  | (AL049<br>482)<br>putati<br>ve   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165173 | ATU027<br>113 | ATL8C1<br>6352:3<br>07..23<br>03 | nap |  |  |  |  | ATL8C1<br>6352:3<br>07..22<br>95 | 0.70 | g41153<br>76 | 82 | 1209 | 1.3e-<br>120 | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>967)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165174 | ATU027<br>114 | ATL8C3<br>7555:7<br>45..1        | nap |  |  |  |  | ATL8C3<br>7555:7<br>45..34       | 0.69 | g42621<br>66 | 82 | 339  | 3.6e-<br>34  | (AC005<br>275)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165175 | ATU027<br>115 | ATL8C7<br>900:13<br>35..11<br>62 | nap |  |  |  |  | ATL8C7<br>900:13<br>35..12<br>38 | 0.67 | g28326<br>55 | 82 | 199  | 7.9e-<br>17  | (AL021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165176 | ATU027<br>116 | ATL8C2<br>4902:9<br>13..1        | nap |  |  |  |  | ATL8C2<br>4902:8<br>44..76       | 0.65 | g44681<br>13 | 82 | 253  | 3.3e-<br>24  | (Y1836<br>7) 3-<br>alpha-<br>hydrox   |

|        |               |                                 |     |  |  |  |  |  |                                 |      |              |    |      |             |   |
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| 165177 | ATU027<br>117 | ATL8C8<br>825:16<br>90..12<br>0 | nap |  |  |  |  |  | ATL8C8<br>825:16<br>42..23<br>1 | 0.64 | g41917<br>91 | 82 | 665  | 5.0e-<br>77 | (AC005<br>917)<br>putati<br>ve<br>sf21<br>{Helia<br>nthus<br>annuus<br>} protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165178 | ATU027<br>118 | ATL8S2<br>3281:5<br>52..1       | nap |  |  |  |  |  | ATL8S2<br>3281:4<br>90..28<br>2 | 0.64 | g28322<br>45 | 82 | 591  | 3.9e-<br>50 | (AF031<br>569)<br>hypoth<br>etical<br>protei<br>n<br>[Zea<br>mays]  |
| 165179 | ATU027<br>119 | ATL8C1<br>0474:1<br>..1611      | nap |  |  |  |  |  | ATL8C1<br>0474:9<br>..1244      | 0.63 | g30470<br>66 | 82 | 2055 |             | (AF058<br>825)<br>contai<br>ns<br>simila  |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |  |   |
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| 165180 | ATU027<br>120 | ATL8C2<br>7357:1<br>278..2<br>979 | nap |  |  |  |  |  | ATL8C2<br>7357:1<br>278..2<br>826 | 0.63 | g32506<br>75 | 82 | 1627 |              |  | rity<br>to<br>retrov<br>irus-<br>relate<br>d POL<br>polyp<br>roteins<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165181 | ATU027<br>121 | ATL8C3<br>2426:5<br>599..3<br>631 | nap |  |  |  |  |  | ATL8C3<br>2426:5<br>503..3<br>631 | 0.62 | g41153<br>59 | 82 | 1946 | 3.7e-<br>204 |  | (AL024<br>486)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 165182 | ATU027<br>122 | ATL8C3<br>0061:2<br>139..1        | nap |  |  |  |  |  | ATL8C3<br>0061:1<br>988..4<br>0   | 0.61 | g42635<br>22 | 82 | 956  | 2.6e-<br>104 |  | (AC004<br>044)<br>hypoth<br>etical  |

|        |               |                                   |     |  |  |  |  |                                   |      |  |                               |        |            |                             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--|-------------------------------|--------|------------|-----------------------------|--|
| 165183 | ATU027<br>123 | ATL8C3<br>6856:1<br>..3130        | nap |  |  |  |  | ATL8C3<br>6856:2<br>9..313<br>0   | 0.60 |  | g30437<br>26                  | 82     | 472        | 2.1e-<br>76                 | protein<br>[Arabidopsis<br>thaliana]   |
| 165184 | ATU027<br>124 | ATL8C2<br>3454:3<br>903..6<br>338 | nap |  |  |  |  | ATL8C2<br>3454:3<br>903..6<br>180 | 0.59 |  | g40380<br>56                  | 82     | 3171       | 4.5e-<br>313                | (AC005<br>897)<br>putative<br>transposon<br>[Arabidopsis<br>thaliana]  |
| 165185 | ATU027<br>125 | ATL8C4<br>0102:1<br>..865         | nap |  |  |  |  | ATL8C4<br>0102:6<br>6..838        | 0.59 |  | g42001<br>22,<br>g44553<br>09 | 82, 51 | 412,<br>80 | 2.3e-<br>36,<br>2.5e-<br>06 | (AJ009<br>555)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana];<br>(AL035<br>528)<br>hypothetical<br>protein |



|        |               |                                  |     |  |  |  |                                  |      |              |    |     |             |   |
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| 165189 | ATU027<br>129 | ATL8C2<br>876:14<br>53..27<br>0  | nap |  |  |  | ATL8C2<br>876:47<br>4..276       | 0.55 | g21296<br>36 | 82 | 673 | 7.8e-<br>71 | [Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>217)<br>putati<br>ve<br>retro<br>element<br>integr<br>ase<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165190 | ATU027<br>130 | ATL8C2<br>3590:1<br>343..6<br>84 | nap |  |  |  | ATL8C2<br>3590:1<br>286..6<br>84 | 0.53 | g45803<br>88 | 82 | 233 | 8.5e-<br>10 | (AC007<br>171)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 165191 | ATU027<br>131 | ATL8C3<br>9451:1<br>..475        | nap |  |  |  | ATL8C3<br>9451:1<br>79..39<br>4  | 0.51 | g38057<br>59 | 82 | 321 | 4.2e-<br>21 | (AC005<br>693)<br>hypoth<br>etical  |

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| 165192 | ATU027<br>132 | ATL8C1<br>3622:1<br>0979..<br>6282 | nap |  |  |  |  |  |  | ATL8C1<br>3622:1<br>0894..<br>6525 | 0.50 |  |  |  |  | g45443<br>72,<br>g33778<br>53 | 82, 76 | 3204,<br>1037 | 0.0,<br>5.6e-<br>95 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 165193 | ATU027<br>133 | ATL8C1<br>0965:7<br>423..<br>059   | nap |  |  |  |  |  |  | ATL8C1<br>0965:7<br>423..<br>039   | 0.49 |  |  |  |  | g30368<br>07                  | 82     | 1583          | 1.6e-<br>156        | (Al022<br>373)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 165194 | ATU027<br>134 | ATL8C1<br>6343:1<br>..1677 | nap |  |  |  | ATL8C1<br>6343:1<br>24..13<br>10 | 0.48 | g41917<br>94                  | 82     | 975         | 5.4e-<br>110                | (AC005<br>917)<br>putati<br>ve<br>zinc<br>finger<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 165195 | ATU027<br>135 | ATL8S1<br>9401:5<br>59..1  | nap |  |  |  | ATL8S1<br>9401:4<br>96..34       | 0.48 | g17105<br>05,<br>g11730<br>59 | 82, 40 | 245,<br>235 | 9.0e-<br>11,<br>7.7e-<br>21 | 50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L18<br>[Vibri<br>o<br>proteo<br>lyticu<br>s];<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L6<br>[Esche<br>richia<br>coli] |
| 165196 | ATU027<br>136 | ATL8C2<br>3405:1<br>..1139 | nap |  |  |  | ATL8C2<br>3405:2<br>09..46<br>7  | 0.47 | g44173<br>05                  | 82     | 850         | 5.5e-<br>74                 | (AC006<br>446)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia]   |



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| 165197 | ATU027<br>137 | ATL8C2<br>4238:2<br>463..1<br>9 | nap |  |  |  | ATL8C2<br>4238:2<br>413..1<br>55 | 0.47 | 933778<br>16 | 82 | 2870 | 7.0e-<br>260 | na]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165198 | ATU027<br>138 | ATL8C1<br>55:692<br>..150       | nap |  |  |  | ATL8C1<br>55:481<br>..219        | 0.45 | 941057<br>94 | 82 | 142  |              | (AF049<br>928)<br>PGP224<br>[Petun<br>ia x<br>hybrid<br>a]  |
| 165199 | ATU027<br>139 | ATL8S2<br>6893:5<br>70..1       | nap |  |  |  | ATL8S2<br>6893:5<br>70..11<br>2  | 0.41 | 921819<br>95 | 82 | 108  |              | (Z9607<br>2)<br>hypo<br>thetical<br>protei<br>n<br>Rv2704<br>[Mycob<br>acteri<br>um<br>tuberc   |

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| 165200 | ATU027<br>140 | ATL8C9<br>435:12<br>56..44<br>8 | nap |  |  |  |  |  |  |  |  | g32978<br>17 | 82 | 157  | 1.5e-<br>13 | (AL031<br>032)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         | ulosi<br>s |
| 165201 | ATU027<br>141 | ATL8C4<br>0552:1<br>..320       | nap |  |  |  |  |  |  |  |  | g41153<br>55 | 82 | 85   | 8.7e-<br>06 | (AC005<br>957)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |            |
| 165202 | ATU027<br>142 | ATL8C3<br>0878:2<br>625..1      | nap |  |  |  |  |  |  |  |  | g36458<br>99 | 82 | 4175 | 0.0         | (U6840<br>8) 5'<br>end<br>not<br>determ<br>ined<br>experi<br>mental<br>ly<br>[Zea<br>mays] |            |
| 165203 | ATU027<br>143 | ATL8S2<br>7853:6<br>50..20<br>1 | nap |  |  |  |  |  |  |  |  | g32288<br>4  | 82 | 180  | 0.0032      | pollen<br>-<br>prefer<br>ential<br>protei<br>n -<br>trumpe                                 |            |

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| 165204 | ATU027<br>144 | ATL8C2<br>0799:1<br>..2463 | nap |  |  |  |  |  |  |  | g44681<br>04 | 82 | 3060 | 6.5e-<br>304 | (AL022<br>223)<br>hypo-<br>thetical<br>protein<br>[Arabi-<br>dopsis<br>thaliana]                                     | t lily<br>[Liliu-<br>m longif-<br>lorum]   |
| 165205 | ATU027<br>145 | ATL8C2<br>6750:4<br>45..1  | nap |  |  |  |  |  |  |  | g45586<br>83 | 82 | 237  | 1.7e-<br>22  | (AC006<br>586)<br>putative<br>retro-<br>transpo-<br>son<br>Ttol<br>ORF1<br>protein<br>[Arabi-<br>dopsis<br>thaliana] | (AC006<br>586)<br>putative<br>retro-<br>transpo-<br>son<br>Ttol<br>ORF1<br>protein<br>[Arabi-<br>dopsis<br>thaliana] |
| 165206 | ATU027<br>146 | ATL8C3<br>2520:3<br>24..1  | nap |  |  |  |  |  |  |  | g34027<br>02 | 82 | 121  | 2.0e-<br>05  | (AC004<br>261)<br>unknown<br>protein<br>[Arabi-<br>dopsis<br>thaliana]   | (AC004<br>261)<br>unknown<br>protein<br>[Arabi-<br>dopsis<br>thaliana]   |

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| 165207 | ATU027<br>147 | ATL8C4<br>2830:2<br>15..15<br>56 | nap |  |  |  |  |  |  | g44903<br>39 | 82 | 244  | 4.9e-<br>34  | (AL035<br>656)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 165208 | ATU027<br>148 | ATL8C8<br>676:19<br>39..34<br>13 | nap |  |  |  |  |  |  | g36458<br>98 | 82 | 2263 | 4.1e-<br>194 | (U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possib<br>ly a<br>post-<br>transp<br>ositio<br>n<br>mutati<br>on<br>[Zea<br>mays] |
| 165209 | ATU027<br>149 | ATL8C4<br>9211:1<br>..1426       | nap |  |  |  |  |  |  | g33193<br>67 | 82 | 703  | 5.3e-<br>77  | (AF077<br>409)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal]                                    |
| 165210 | ATU027<br>150 | ATL8C4<br>2362:1<br>544..1       | nap |  |  |  |  |  |  | g17698<br>98 | 82 | 2315 | 6.8e-<br>200 | (Y0801<br>0)<br>lectin<br>recept   |



|        |               |                            |     |  |  |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165215 | 154           | 6529:1<br>..565            |     |  |  |  |  |  |  | 13                               |      |              |    |      | 82           | 1)<br>mtrA<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]   |
|        | ATU027<br>155 | ATL8C2<br>8133:1<br>063..1 | nap |  |  |  |  |  |  | ATL8C2<br>8133:1<br>033..8<br>3  | 0.96 | g72950<br>6  | 81 | 337  | 1.3e-<br>32  | NARING<br>ENIN,2<br>-<br>OXOGLU<br>TARATE<br>3-<br>DIOXYG<br>ENASE<br>(FLAVO<br>NONE-<br>3-<br>HYDROX<br>YLASE)<br>(FHT)<br>[Matth<br>iola<br>incana<br>] |
| 165216 | ATU027<br>156 | ATL8C2<br>5688:1<br>175..4 | nap |  |  |  |  |  |  | ATL8C2<br>5688:1<br>109..6<br>04 | 0.94 | g45824<br>61 | 81 | 1878 | 8.0e-<br>158 | (AC007<br>071)<br>putati<br>ve<br>triacy<br>lglyce<br>rol<br>lipase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165217 | ATU027<br>157 | ATL8C2<br>2290:1           | nap |  |  |  |  |  |  | ATL8C2<br>2290:8                 | 0.93 | g29210<br>94 | 81 | 427  | 4.5e-<br>40  | (AF018<br>174)  |

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| 165218 | ATU027<br>158 | ..1255                           | nap |  |  |  | 39..12<br>11                     | 0.87 | g22136<br>04 | 81 | 609 | 7.7e-<br>65 | thiore-<br>dixin-<br>f<br>[Brass<br>ica<br>napus]<br>(AC000<br>348)<br>T7N9.2<br>4<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 165219 | ATU027<br>159 | ATL8C5<br>527:64<br>3..1         | nap |  |  |  | ATL8C5<br>527:37<br>6..44        | 0.87 | g30753<br>99 | 81 | 322 | 1.1e-<br>29 | (AC004<br>484)<br>SF16-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165220 | ATU027<br>160 | ATL8C1<br>4864:6<br>83..23<br>07 | nap |  |  |  | ATL8C1<br>4864:6<br>83..20<br>39 | 0.85 | g58687<br>5  | 81 | 85  | 0.0004<br>5 | HYPOTH<br>ETICAL<br>29.2<br>KD<br>PROTEI<br>N IN<br>METS-<br>KSGA<br>INTERG<br>ENIC<br>REGION<br>[Bacil<br>lus<br>subtil<br>is] |
| 165221 | ATU027        | ATL8S3                           | nap |  |  |  | ATL8S3                           | 0.80 | g57544       | 81 | 274 | 8.2e-       | (U1685  |

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|--------|----------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|------|--------------|--|---|
| 161    | 075:33<br>5..1 |                                   |     |  |  |  | 075:33<br>5..32                   | 9    |              |      |              | 25   | 7)<br>Derive<br>d from<br>E. coli<br>thiore<br>doxin<br>gene;<br>normal<br>transl<br>ation<br>termin<br>ation<br>codon<br>follow<br>ing<br>nucleo<br>tide<br>3050<br>has<br>been<br>remove<br>d<br>[Cloni<br>ng<br>vector<br>pTRXFU<br>S] |
| 165222 | ATU027<br>162  | ATL8C1<br>7685:4<br>748..2<br>746 | nap |  |  |  | ATL8C1<br>7685:4<br>517..2<br>966 | 0.80 | g47738<br>93 | 1953 | 2.4e-<br>193 | (AF076<br>243)<br>putati<br>ve<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis |   |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|--|
| 165223 | ATU027<br>163 | ATL8C2<br>1694:1<br>..755        | nap |  |  |  | ATL8C2<br>1694:2<br>57..75<br>5  | 0.80 | g45586<br>87 | 81 | 776  | 2.1e-<br>66 | thalia<br>nal<br>(AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165224 | ATU027<br>164 | ATL8C2<br>9107:3<br>4..364<br>6  | nap |  |  |  | ATL8C2<br>9107:3<br>4..357<br>8  | 0.80 | g37790<br>26 | 81 | 4050 | 0.0         | (AC005<br>171)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>[Arabi<br>dopsis<br>thalia<br>nal]          |
| 165225 | ATU027<br>165 | ATL8C1<br>0348:6<br>85..21<br>43 | nap |  |  |  | ATL8C1<br>0348:6<br>85..21<br>30 | 0.80 | g28275<br>35 | 81 | 1114 |             | (AL021<br>633)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                  |
| 165226 | ATU027<br>166 | ATL8C1<br>9930:7<br>1..174<br>4  | nap |  |  |  | ATL8C1<br>9930:7<br>1..174<br>2  | 0.76 | g29953<br>40 | 81 | 829  | 1.1e-<br>90 | (AL022<br>244)<br>hypoth<br>etical<br>protei<br>n<br>[Schiz  |

|        |               |                                  |     |  |  |  |  |                                   |      |                               |        |              |                              |  |
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| 165227 | ATU027<br>167 | ATL8C2<br>2248:2<br>325..5<br>64 | nap |  |  |  |  | ATL8C2<br>2248:2<br>251..1<br>018 | 0.75 | g45212<br>49,<br>g43357<br>53 | 81, 62 | 1287,<br>290 | 3.5e-<br>132,<br>5.6e-<br>30 | osacch<br>aromyc<br>es<br>pombe]<br>(AB013<br>912)<br>DNA<br>helica<br>se<br>[Mus<br>muscul<br>us];<br>(AC006<br>284)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165228 | ATU027<br>168 | ATL8C1<br>3997:1<br>895..1       | nap |  |  |  |  | ATL8C1<br>3997:1<br>868..2<br>1   | 0.74 | g31281<br>69                  | 81     | 421          | 8.7e-<br>31                  | (AC004<br>521)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165229 | ATU027<br>169 | ATL8C3<br>4377:9<br>74..1        | nap |  |  |  |  | ATL8C3<br>4377:9<br>74..16        | 0.70 | g42048<br>04                  | 81     | 646          | 1.8e-<br>49                  | (U5252<br>0)<br>cyclin<br>[Pisum<br>sativu<br>m]   |
| 165230 | ATU027<br>170 | ATL8C3<br>2138:1                 | nap |  |  |  |  | ATL8C3<br>2138:8                  | 0.69 | g29207<br>06,                 | 81, 46 | 849,<br>139  | 5.0e-<br>90,                 | (Y1356<br>8)   |

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| 165231 | ATU027<br>171 | ATL8C2<br>0221:1<br>930..4<br>80 | nap |  |  |  | 4..385<br>8                     | 0.67 | g30803<br>58 | 81 | 824  | 5.0e-<br>07  | beta-<br>xylosi<br>dase<br>[Emeri<br>cella<br>nidula<br>ns];<br>(AC003<br>674)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165232 | ATU027<br>172 | ATL8C4<br>7119:1<br>..3783       | nap |  |  |  | ATL8C4<br>7119:5<br>2..378<br>3 | 0.67 | g47339<br>86 | 81 | 2330 | 2.6e-<br>138 | (AC007<br>209)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165233 | ATU027<br>173 | ATL8C3<br>5202:1<br>867..1       | nap |  |  |  | ATL8C3<br>5202:1<br>867..4      | 0.66 | g22449<br>88 | 81 | 992  | 3.8e-<br>107 | (Z9734<br>0)<br>hypoth  |

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| 165234 | ATU027<br>174 | ATL8C1<br>6749:1<br>..4062 | nap |  |  |  |  |  | 81   |  | 0.65          | g22135<br>99 | 81 | 4071 | 0.0 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165235 | ATU027<br>175 | ATL8S2<br>6516:1<br>..637  | nap |  |  |  |  |  | ATL8S2<br>6516:5<br>3..332   |  | 0.65          | g35488<br>00 | 81 | 721  |     | (AC005<br>313)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165236 | ATU027<br>176 | ATL8C4<br>4222:1<br>..5181 | nap |  |  |  |  |  | ATL8C4<br>4222:8<br>8..827<br>,<br>ATL8C4<br>4222:4<br>692..5<br>155 |  | 0.62,<br>0.70 | g42638<br>31 | 81 | 5005 | 0.0 | (AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>na]                   |

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| 165237 | ATU027<br>177 | ATL8C4<br>1812:6<br>410..3<br>077 | nap |  |  |  |  | ATL8C4<br>1812:6<br>403..3<br>077 | 0.61 | g32427<br>13 | 81 | 2837 | 3.7e-<br>290 | (AC003<br>040)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 165238 | ATU027<br>178 | ATL8C1<br>3167:4<br>275..1        | nap |  |  |  |  | ATL8C1<br>3167:3<br>735..4<br>32  | 0.59 | g37859<br>84 | 81 | 3249 | 1.0e-<br>262 | (AC005<br>560)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165239 | ATU027<br>179 | ATL8C2<br>717:14<br>21..1         | nap |  |  |  |  | ATL8C2<br>717:14<br>21..75<br>9   | 0.59 | g37860<br>06 | 81 | 1239 | 5.0e-<br>109 | (AC005<br>499)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 165240 | ATU027<br>180 | ATL8S5<br>68:44.<br>.553          | nap |  |  |  |  | ATL8S5<br>68:101<br>..514         | 0.58 | g47339<br>74 | 81 | 599  | 4.1e-<br>48  | (AC007<br>264)<br>hypoth<br>etical<br>protei  |

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| 165241 | ATU027<br>181 | ATL8C1<br>4731:7<br>984..2<br>156 | nap |  |  |  |  |  | ATL8C1<br>4731:7<br>449..2<br>156 | 0.58 | g43888<br>25 | 81 | 1760 | 1.7e-<br>135 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>528)<br>putati<br>ve pol<br>polypr<br>oteins<br>with<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>(Pfam:<br>PF0007<br>8)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165242 | ATU027<br>182 | ATL8C2<br>6247:1<br>..2615        | nap |  |  |  |  |  | ATL8C2<br>6247:1<br>33..23<br>78  | 0.57 | g38853<br>36 | 81 | 1249 | 2.6e-<br>105 | (AC005<br>623)<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165243 | ATU027<br>183 | ATL8S1<br>7707:3<br>79..1         | nap |  |  |  |  |  | ATL8S1<br>7707:3<br>79..14        | 0.53 | g13817<br>39 | 81 | 365  | 1.9e-<br>34  | (U5891<br>1)<br>HI0379  |

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| 165244 | ATU027<br>184 | ATL8C1<br>1662:1<br>00..11<br>17 | nap |  |  |  |  | ATL8C1<br>1662:4<br>39..10<br>38 | 0.53 |  |  | g44903<br>39                  | 81     | 280         | 1.1e-<br>29                 | homolo<br>g<br>[Neiss<br>eria<br>mening<br>itidis<br>]   |
| 165245 | ATU027<br>185 | ATL8S1<br>2866:1<br>20..61<br>5  | nap |  |  |  |  | ATL8S1<br>2866:5<br>64..48<br>2  | 0.52 |  |  | g17857<br>91                  | 81     | 697         | 2.9e-<br>68                 | (Y0850<br>2)<br>orf204<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165246 | ATU027<br>186 | ATL8S1<br>5873:1<br>..553        | nap |  |  |  |  | ATL8S1<br>5873:8<br>2..352       | 0.49 |  |  | g25002<br>57,<br>g11732<br>84 | 81, 48 | 329,<br>183 | 1.5e-<br>31,<br>3.3e-<br>15 | 50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L13<br>[Synec<br>hocyst<br>is<br>sp.];<br>30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S9<br>[Haemo<br>philus |

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| 165247 | ATU027<br>187 | ATL8C2<br>2603:9<br>15..1  | nap |  |  |  |  | ATL8C2<br>2603:8<br>78..20<br>1 | 0.49 | g36954<br>11 | 81 | 508  | 2.0e-<br>44  | (AF096<br>373)<br>T9A4.1<br>2 gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165248 | ATU027<br>188 | ATL8C2<br>6142:2<br>330..8 | nap |  |  |  |  | ATL8C2<br>6142:1<br>104..8<br>1 | 0.49 | g40493<br>99 | 81 | 1347 | 3.4e-<br>154 | (Y0958<br>1)<br>FRO2<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 165249 | ATU027<br>189 | ATL8C3<br>7828:4<br>77..1  | nap |  |  |  |  | ATL8C3<br>7828:4<br>77..70      | 0.48 | g29613<br>76 | 81 | 283  | 8.6e-<br>09  | (AL022<br>141)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165250 | ATU027<br>190 | ATL8C3<br>0866:1<br>..4672 | nap |  |  |  |  | ATL8C3<br>0866:7<br>2..467<br>2 | 0.43 | g37790<br>21 | 81 | 3617 | 0.0          | (AC005<br>171)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi       |



|        |               |                                 |     |  |  |  |  |  |  |                                 |      |              |    |     |             |   |
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| 165251 | ATU027<br>191 | ATL8C7<br>142:78<br>4..194      | nap |  |  |  |  |  |  | ATL8C7<br>142:67<br>9..328      | 0.42 | g42622<br>31 | 81 | 491 | 4.1e-<br>21 | dopsis<br>thalia<br>na]<br>(AC006<br>200)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165252 | ATU027<br>192 | ATL8S1<br>3089:2<br>69..53<br>2 | nap |  |  |  |  |  |  | ATL8S1<br>3089:2<br>69..50<br>9 | 0.40 | g47339<br>66 | 81 | 323 | 2.0e-<br>18 | (AC007<br>261)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 165253 | ATU027<br>193 | ATL8C3<br>4037:2<br>36..1       | nap |  |  |  |  |  |  |                                 |      | g36953<br>98 | 81 | 133 | 6.1e-<br>09 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 165254 | ATU027<br>194 | ATL8C2<br>9671:1<br>616..9<br>4 | nap |  |  |  |  |  |  |                                 |      | g49144<br>63 | 81 | 634 | 1.2e-<br>64 | (AL050<br>400)<br>putati<br>ve<br>protei<br>n   |

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| 165255 | ATU027<br>195 | ATL8C9<br>923:21<br>3..612        | nap |  |  |  |  |  |  |  |  |  | g44572<br>21 | 81 | 162 | 5.3e-<br>13 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF127<br>797)<br>putati<br>ve<br>bZIP<br>DNA-<br>bindin<br>g<br>protei<br>n<br>[Capsi<br>cum<br>chinen<br>se] |
| 165256 | ATU027<br>196 | ATL8C3<br>1412:1<br>335..1        | nap |  |  |  |  |  |  |  |  |  | g45876<br>78 | 81 | 997 | 2.0e-<br>97 | (AC007<br>197)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>gene,<br>5',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 165257 | ATU027<br>197 | ATL8C1<br>4424:4<br>038..3<br>395 | nap |  |  |  |  |  |  |  |  |  | g45859<br>24 | 81 | 479 | 1.7e-<br>46 | (AC007<br>211)<br>hypoth<br>etical<br>protei<br>n   |

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| 165258 | ATU027<br>198 | ATL8S2<br>6998:5<br>57..1         | nap |  |  |  |  |  |  |  | g25067<br>90 | 81 | 442  |              |   | [Arabi<br>dopsis<br>thalia<br>na] |
| 165259 | ATU027<br>199 | ATL8C4<br>4228:7<br>353..9<br>107 | nap |  |  |  |  |  |  |  | g45672<br>96 | 81 | 1918 | 2.3e-<br>178 | (AC006<br>918)<br>putati<br>ve<br>Athila<br>retroee<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |                                   |
| 165260 | ATU027<br>200 | ATL8C2<br>1577:1                  | nap |  |  |  |  |  |  |  | g29593<br>58 | 81 | 250  | 8.6e-<br>26  | (X9675<br>8)  |                                   |

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| 165261 | ATU027<br>201 | ATL8C3<br>6248:2<br>30..17<br>97 | nap |  |  |  |  |  |  |  |  |  | g34618<br>24 | 81 | 1788 | 6.8e-<br>120 | (AC004<br>138)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] | clathr<br>in<br>coat<br>assemb<br>ly<br>protei<br>n AP17<br>[Zea<br>mays] |
| 165262 | ATU027<br>202 | ATL8S2<br>7482:1<br>..468        | nap |  |  |  |  |  |  |  |  |  | g24628<br>34 | 81 | 246  | 1.5e-<br>24  | (AF000<br>657)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 165263 | ATU027<br>203 | ATL8C1<br>3284:5<br>95..1        | nap |  |  |  |  |  |  |  |  |  | g37765<br>65 | 81 | 777  | 4.4e-<br>79  | (AC005<br>388)<br>T22H22<br>.8<br>[Arabi<br>dopsis<br>thalia<br>na]                |   |
| 165264 | ATU027<br>204 | ATL8C3<br>3852:1<br>188..3       | nap |  |  |  |  |  |  |  |  |  | g41153<br>63 | 81 | 1832 |              | (AC005<br>957)<br>putati   |   |



|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 165267 | ATU027<br>207 | ATL8C4<br>0616:3<br>2..107<br>4   | nap |  |  |  |  |  |  |  |  |  | g41853<br>10 | 81 | 856  | 1.0e-<br>100 | n<br>[Brass<br>ica<br>rapa]<br>(AF090<br>446)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |
| 165268 | ATU027<br>208 | ATL8C3<br>1700:4<br>33..1         | nap |  |  |  |  |  |  |  |  |  | g46894<br>77 | 81 | 658  | 4.4e-<br>65  | (AC007<br>213)<br>pseud<br>ogene<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 165269 | ATU027<br>209 | ATL8C3<br>9289:1<br>714..3<br>373 | nap |  |  |  |  |  |  |  |  |  | g44544<br>77 | 81 | 626  | 1.5e-<br>58  | (AC006<br>234)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165270 | ATU027<br>210 | ATL8C6<br>572:43<br>6..1          | nap |  |  |  |  |  |  |  |  |  | g45389<br>59 | 81 | 141  | 5.2e-<br>13  | (AL049<br>488)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 165271 | ATU027        | ATL8C3                            | nap |  |  |  |  |  |  |  |  |  | g41159       | 81 | 1298 | 8.1e-        | (AF118)  |

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|--------|-----------------------|----------------------------|-----|--|--|--|--|--|--|----|--------------|----|-----|--|-------------|--|
| 211    | 3329:3<br>3..100<br>0 |                            |     |  |  |  |  |  |  | 14 |              |    |     |  | 133         | 222)<br>contai<br>ns<br>simila<br>rity<br>to<br>Iron/A<br>scorba<br>te<br>family<br>of<br>oxidor<br>educta<br>ses<br>(Pfam:<br>PF0067<br>1,<br>Score=<br>297.8,<br>E=1.3e<br>-85,<br>N=1)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165272 | ATU027<br>212         | ATL8S1<br>320:58<br>3..175 | nap |  |  |  |  |  |  |    | g40068<br>23 | 81 | 51  |  | 0.0004<br>3 | (AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165273 | ATU027<br>213         | ATL8C4<br>904:87<br>5..1   | nap |  |  |  |  |  |  |    | g45860<br>41 | 81 | 911 |  | 1.2e-<br>93 | (AC007<br>020)<br>hypoth<br>etical   |

|        |               |                                 |     |  |  |  |  |  |  |  |  |                            |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|----------------------------|----|-----|-------------|---|
| 165274 | ATU027<br>214 | ATL8C2<br>3450:1<br>..1010      | nap |  |  |  |  |  |  |  |  | g26233<br>06               | 81 | 587 | 7.0e-<br>67 | protein<br>[Arabis<br>dopsis<br>thaliana]<br>(AC002<br>409)<br>unknown<br>protein<br>[Arabis<br>dopsis<br>thaliana] |
| 165275 | ATU027<br>215 | ATL8C1<br>4683:4<br>02..82<br>3 | nap |  |  |  |  |  |  |  |  | g38513<br>41               | 81 | 72  | 0.012       | (AF000<br>167)<br>14.3<br>kDa<br>perchloric<br>acid<br>soluble<br>protein<br>[Capra<br>hircus]                      |
| 165276 | ATU027<br>216 | ATL8S1<br>6041:2<br>23..1       | nap |  |  |  |  |  |  |  |  | ATL8S1<br>6041:2<br>23..17 | 80 | 134 | 3.5e-<br>09 | EXODEO<br>XYRIBO<br>NUCLEA<br>SE<br>SMALL<br>SUBUNIT<br>(EXONUCLEA<br>SE)<br>VII                                    |



|        |               |                                  |     |  |  |  |  |  |               |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|---------------|--------------|----|------|--------------|---|
| 165277 | ATU027<br>217 | ATL8S6<br>272:50<br>2..1         | nap |  |  |  |  | ATL8S6<br>272:49<br>6..17  | 0.97          | g29504<br>11 | 80 | 264  |              | SMALL<br>SUBUNIT<br>[Escherichia coli]<br>(Al022<br>075)<br>hypothetical<br>protein<br>Rv3588<br>c<br>[Mycobacterium<br>tuberculosis] |
| 165278 | ATU027<br>218 | ATL8S1<br>9439:4<br>43..52       | nap |  |  |  |  | ATL8S1<br>9439:1<br>57..52   | 0.93          | g42932       | 80 | 116  | 2.8e-<br>08  | (X5617<br>5) ORF<br>3 (AA<br>1 -<br>110)<br>[Escherichia coli]  |
| 165279 | ATU027<br>219 | ATL8C2<br>3814:2<br>52..31<br>60 | nap |  |  |  |  | ATL8C2<br>3814:2<br>52..22<br>82,<br>ATL8C2<br>3814:3<br>082..2<br>932 | 0.92,<br>0.78 | g47739<br>20 | 80 | 2141 | 1.2e-<br>205 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>product<br>[Arabis<br>dopsis<br>thaliana]   |
| 165280 | ATU027        | ATL8C2                           | nap |  |  |  |  | ATL8C2   | 0.91          | g45875       | 80 | 957  | 1.5e-        | (AC006  |

|     |                  |  |  |  |  |                        |    |  |    |   |
|-----|------------------|--|--|--|--|------------------------|----|--|----|---|
| 220 | 6092:1<br>..1724 |  |  |  |  | 6092:3<br>89..17<br>24 | 49 |  | 77 | 577)<br>Simila<br>r to<br>gb U55<br>861<br>RNA<br>bindin<br>g protei<br>n nucleo<br>lysin<br>(TIAR)<br>from<br>Mus<br>muscul<br>us and<br>contai<br>ns<br>severa<br>l<br>PF 000<br>76 RNA<br>recogn<br>ition<br>motif<br>domain<br>s.<br>ESTs<br>gb T21<br>032<br>and<br>gb T44<br>127<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis |
|-----|------------------|--|--|--|--|------------------------|----|--|----|---|

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165281 | ATU027<br>221 | ATL8C1<br>6065:1<br>079..7       | nap |  |  |  |  | ATL8C1<br>6065:9<br>74..21<br>5  | 0.91 | g47340<br>01 | 80 | 612  | 2.1e-<br>68  | t...<br>[<br>(AC007<br>187)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 165282 | ATU027<br>222 | ATL8C9<br>42:375<br>3..218<br>4  | nap |  |  |  |  | ATL8C9<br>42:374<br>0..218<br>4  | 0.89 | g45858<br>97 | 80 | 656  | 8.2e-<br>58  | (AC007<br>133)<br>hypoth<br>etical<br>protei<br>n, 5'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165283 | ATU027<br>223 | ATL8C8<br>033:31<br>13..22<br>33 | nap |  |  |  |  | ATL8C8<br>033:30<br>82..22<br>33 | 0.88 | g22135<br>95 | 80 | 833  | 2.0e-<br>88  | (AC000<br>348)<br>T7N9.1<br>5<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165284 | ATU027<br>224 | ATL8C4<br>2554:2<br>664..1       | nap |  |  |  |  | ATL8C4<br>2554:2<br>664..3<br>44 | 0.87 | g43888<br>21 | 80 | 1672 | 3.0e-<br>177 | (AC006<br>528)<br>putati<br>ve<br>mudra<br>transp<br>osase<br>protei                                      |

|        |               |                                   |     |  |  |  |  |                                    |      |              |    |     |             |   |
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| 165285 | ATU027<br>225 | ATL8S2<br>8713:4<br>32...1        | nap |  |  |  |  | ATL8S2<br>8713:3<br>93...10        | 0.86 | g21207<br>80 | 80 | 271 | 3.4e-<br>26 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>fixR<br>homolo<br>gue -<br>Agroba<br>cteriu<br>m<br>tumefa<br>ciens<br>(fragm<br>ent)<br>[Agrob<br>acteri<br>um<br>tumefa<br>ciens]   |
| 165286 | ATU027<br>226 | ATL8C4<br>6927:5<br>25...18<br>60 | nap |  |  |  |  | ATL8C4<br>6927:1<br>238...1<br>748 | 0.85 | g36953<br>82 | 80 | 590 | 1.4e-<br>47 | (AF096<br>370)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Tall-1<br>(GB:I4<br>7193)<br>[Arabi<br>dopsis<br>thalia |

|        |               |                            |     |  |  |  |                                 |      |              |    |      |   |
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| 165287 | ATU027<br>227 | ATL8C5<br>741:1.<br>.1977  | nap |  |  |  | ATL8C5<br>741:29<br>2..197<br>7 | 0.84 | g40380<br>52 | 80 | 137  | na]<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165288 | ATU027<br>228 | ATL8S5<br>330:29<br>2..1   | nap |  |  |  | ATL8S5<br>330:15<br>9..101      | 0.84 | g39280<br>91 | 80 | 43   | (AC005<br>770)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 165289 | ATU027<br>229 | ATL8C4<br>4660:2<br>333..1 | nap |  |  |  | ATL8C4<br>4660:2<br>262..5<br>2 | 0.83 | g22447<br>53 | 80 | 2478 | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 165290 | ATU027<br>230 | ATL8C3<br>936:1.<br>.426   | nap |  |  |  | ATL8C3<br>936:10<br>8..420      | 0.83 | g10844<br>54 | 80 | 382  | peptid<br>ylprol<br>yl<br>isomer<br>ase<br>(EC<br>5.2.1.<br>8)<br>Cyp1 -                      |

|        |               |                                  |     |  |  |  |  |  |  |      |              |    |      |              |  |
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| 165291 | ATU027<br>231 | ATL8C4<br>6085:1<br>..2565       | nap |  |  |  |  |  |  | 0.83 | g27087<br>44 | 80 | 1265 | 2.9e-<br>99  | rice<br>[Oryza<br>sativa<br>]<br>(AC003<br>952)<br>putati<br>ve<br>Bop-<br>like<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165292 | ATU027<br>232 | ATL8C2<br>8122:5<br>12..1        | nap |  |  |  |  |  |  | 0.81 | g26459<br>77 | 80 | 449  | 1.0e-<br>45  | (AF034<br>202)<br>prolif<br>eratin<br>g cell<br>nuclea<br>r<br>antige<br>n<br>[Isoch<br>rysis<br>galban<br>a]  |
| 165293 | ATU027<br>233 | ATL8C1<br>2569:2<br>358..6<br>52 | nap |  |  |  |  |  |  | 0.80 | g43888<br>21 | 80 | 1342 | 1.5e-<br>109 | (AC006<br>528)<br>putati<br>ve<br>mudra<br>transp<br>osase<br>protei<br>n  |

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| 165294 | ATU027<br>234 | ATL8C2<br>6485:1<br>..1445        | nap |  |  |  |  | ATL8C2<br>6485:2<br>18..14<br>32  | 0.80 |  | g36680<br>81                  | 80     | 262          | 8.9e-<br>22                  | [Arabi<br>dopsis<br>thalia<br>nal]<br>(AC004<br>667)<br>putati<br>ve<br>peptid<br>ase<br>[Arabi<br>dopsis<br>thalia<br>nal]     |
| 165295 | ATU027<br>235 | ATL8S2<br>5773:1<br>..427         | nap |  |  |  |  | ATL8S2<br>5773:6<br>7..376        | 0.77 |  | g13264<br>1                   | 80     | 378          | 3.7e-<br>32                  | 50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L10<br>[Strep<br>tomyce<br>s<br>antibi<br>oticus<br>]                                       |
| 165296 | ATU027<br>236 | ATL8C3<br>9970:1<br>006..2<br>775 | nap |  |  |  |  | ATL8C3<br>9970:1<br>006..2<br>607 | 0.76 |  | g38057<br>57,<br>g45443<br>75 | 80, 35 | 179,<br>1697 | 7.3e-<br>15,<br>2.2e-<br>169 | (AC005<br>693)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC006<br>920) |





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| 165300 | ATU027<br>240 | ATL8C2<br>6604:2<br>470..8<br>68 | nap |  |  |  |  |  |  | ATL8C2<br>6604:2<br>470..8<br>68 | 0.73 | g45811<br>54 | 80 | 1965 | 7.0e-<br>175 | 3' end<br>fragment<br>(PID:g<br>161956<br>)<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165301 | ATU027<br>241 | ATL8S9<br>897:1.<br>.469         | nap |  |  |  |  |  |  | ATL8S9<br>897:15<br>0..469       | 0.73 | g14016<br>3  | 80 | 208  | 1.0e-<br>13  | HYPOTH<br>ETICAL<br>17.4<br>KD<br>PROTEI<br>N IN<br>FRUR-<br>FTSL<br>INTERG<br>ENIC<br>REGION<br>(ORFC)<br>[Esche<br>richia<br>coli] |
| 165302 | ATU027<br>242 | ATL8C6<br>893:1.<br>.1765        | nap |  |  |  |  |  |  | ATL8C6<br>893:10<br>12..17<br>65 | 0.71 | g32192<br>71 | 80 | 409  | 7.6e-<br>49  | (AB015<br>315)<br>MAP<br>kinase<br>kinase  |

|        |               |                                 |     |  |  |  |  |  |  |                                  |      |              |    |      |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|------|-------------|---|
| 165303 | ATU027<br>243 | ATL8C3<br>351:22<br>56..90<br>0 | nap |  |  |  |  |  |  | ATL8C3<br>351:22<br>56..11<br>45 | 0.67 | g45394<br>59 | 80 | 753  | 2.0e-<br>60 | 4<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL049<br>500)<br>putati<br>ve<br>protei<br>n.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165304 | ATU027<br>244 | ATL8C4<br>3321:3<br>315..1      | nap |  |  |  |  |  |  | ATL8C4<br>3321:3<br>294..5<br>23 | 0.66 | g45811<br>10 | 80 | 2954 |             | (AC005<br>825)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>polyp<br>rotein<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 165305 | ATU027<br>245 | ATL8C3<br>2127:8<br>68..1       | nap |  |  |  |  |  |  | ATL8C3<br>2127:8<br>41..59       | 0.65 | g39245<br>97 | 80 | 347  | 6.8e-<br>35 | (AF069<br>442)<br>putati<br>ve<br>oxidor<br>educta<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 165306 | ATU027        | ATL8C2                          | nap |  |  |  |  |  |  | ATL8C2                           | 0.65 | g32528       | 80 | 390  | 1.4e-       | (AC004  |

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|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--|------------------|----------------------|---|---|
| 165307 | 246           | 2430:1<br>..1467           | nap |  |  |  | 2430:1<br>197..6<br>87           | 0.65 | g12638<br>6                                    | 80               | 131                  | 50  | 705)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165308 | ATU027<br>247 | ATL8S6<br>988:1.<br>.251   | nap |  |  |  | ATL8S6<br>988:48<br>..251        | 0.63 | g45858<br>77                                   | 80               | 287                  | 5.3e-<br>27                                 | POLLEN<br>ALLERG<br>EN LOL<br>P 2-A<br>(LOL P<br>II-A)<br>[]  |
| 165309 | ATU027<br>249 | ATL8C2<br>3753:1<br>..3333 | nap |  |  |  | ATL8C2<br>3753:3<br>15..28<br>70 | 0.60 | g41153<br>61,<br>g41153<br>62,<br>g46894<br>52 | 80,<br>51,<br>35 | 815,<br>1094,<br>239 | 1.9e-<br>63,<br>4.1e-<br>82,<br>6.4e-<br>20 | (AC005<br>957)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>957)<br>hypoth<br>etical |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165310 | ATU027<br>250 | ATL8C1<br>5324:6<br>33..21<br>75 | nap |  |  |  |  |  |  | ATL8C1<br>5324:6<br>33..21<br>46 | 0.60 | g41851<br>38 | 80 | 1630 | 3.6e-<br>146 | prote<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>267)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>724)<br>putati<br>ve<br>transl<br>ation<br>initia<br>tion<br>factor<br>eIF-2<br>gamma<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165311 | ATU027<br>251 | ATL8C3<br>2069:1<br>..2423       | nap |  |  |  |  |  |  | ATL8C3<br>2069:2<br>67..22<br>09 | 0.59 | g45859<br>90 | 80 | 3041 | 4.0e-<br>259 | (AC005<br>287)<br>Very<br>simila<br>r to  |



|        |               |                                  |     |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 165313 | ATU027<br>253 | ATL8C4<br>9461:2<br>361..1       | nap |  |  | ATL8C4<br>9461:2<br>361..1<br>351 | 0.57 | g45672<br>16 | 80 | 1352 | 5.3e-<br>140 | (AC007<br>113)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165314 | ATU027<br>254 | ATL8C4<br>5548:9<br>67..1        | nap |  |  | ATL8C4<br>5548:9<br>25..22        | 0.54 | g28282<br>81 | 80 | 548  | 5.3e-<br>49  | (AL021<br>687)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165315 | ATU027<br>255 | ATL8C4<br>0636:4<br>7..108<br>0  | nap |  |  | ATL8C4<br>0636:4<br>7..599        | 0.51 | g13635<br>28 | 80 | 1217 | 7.8e-<br>121 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]   |
| 165316 | ATU027<br>256 | ATL8C7<br>446:13<br>19..16<br>86 | nap |  |  | ATL8C7<br>446:15<br>08..14<br>21  | 0.51 | g24628<br>21 | 80 | 309  | 2.6e-<br>17  | (AF000<br>657)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165317 | ATU027<br>257 | ATL8C2<br>0214:1<br>..2430       | nap |  |  | ATL8C2<br>0214:8<br>2..242<br>4   | 0.51 | g40080<br>10 | 80 | 1882 | 6.7e-<br>177 | (AF084<br>036)<br>recept<br>or-  |

|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |   |
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| 165318 | ATU027<br>258 | ATL8C1<br>3086:1<br>..5114 | nap |  |  |  | ATL8C1<br>3086:1<br>49..50<br>14 | 0.48 | g45875<br>84 | 80 | 2698 | 5.7e-<br>292 | like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>232)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 165319 | ATU027<br>259 | ATL8C4<br>2040:3<br>563..1 | nap |  |  |  | ATL8C4<br>2040:3<br>451..4<br>36 | 0.46 | g43253<br>54 | 80 | 2467 | 7.4e-<br>265 | (AF128<br>395)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrov<br>irus-<br>relate<br>d<br>polypr<br>oteins<br>and to<br>CCHC<br>zinc<br>finger<br>protei<br>n<br>(Pfam:<br>PF0009<br>8, |

|        |               |                            |     |  |  |  |  |                                 |      |              |    |      |              |   |  |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|---|--|
| 165320 | ATU027<br>260 | ATL8C4<br>7424:1<br>..3856 | nap |  |  |  |  | ATL8C4<br>7424:5<br>5..385<br>6 | 0.46 | g33193<br>60 | 80 | 2890 | 1.6e-<br>284 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] | Score=<br>16.3,<br>E=0.05<br>1, E=<br>1) |
| 165321 | ATU027<br>261 | ATL8C2<br>2372:9<br>40..1  | nap |  |  |  |  | ATL8C2<br>2372:8<br>12..40      | 0.45 | g46782<br>88 | 80 | 576  | 2.2e-<br>67  | (AL049<br>660)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |  |



|        |               |                                  |     |  |  |                                  |      |                               |        |              |                     |   |
|--------|---------------|----------------------------------|-----|--|--|----------------------------------|------|-------------------------------|--------|--------------|---------------------|---|
| 165322 | ATU027<br>262 | ATL8C2<br>539:13<br>04..1        | nap |  |  | ATL8C2<br>539:12<br>39..77       | 0.44 | g43097<br>56                  | 80     | 2082         | 2.0e-<br>188        | (AC006<br>217)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165323 | ATU027<br>263 | ATL8C5<br>743:53<br>4..222<br>4  | nap |  |  | ATL8C5<br>743:58<br>9..125<br>5  | 0.42 | g44328<br>31                  | 80     | 1544         |                     | (AC006<br>283)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165324 | ATU027<br>264 | ATL8C4<br>5004:1<br>04..41<br>78 | nap |  |  | ATL8C4<br>5004:1<br>04..41<br>25 | 0.42 | g42493<br>81,<br>g42637<br>63 | 80, 59 | 4048,<br>224 | 0.0,<br>3.8e-<br>20 | (AC005<br>966)<br>Strong<br>simila<br>rity<br>to<br>gb AF0<br>39376<br>Evelkn<br>ievel<br>retrot<br>ranspo<br>son<br>polypr<br>otein<br>from<br>Arabid<br>opsis<br>arenos<br>a. |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |     |             |  |   |
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| 165325 | ATU027<br>265 | ATL8C5<br>833:32<br>43..12<br>01 | nap |  |  |  |  |  | ATL8C5<br>833:31<br>28..12<br>01 | 0.41 | g10844<br>27 | 80 | 298 |             |  | [Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>218)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e, 5',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165326 | ATU027<br>266 | ATL8C2<br>6160:3<br>89..70<br>8  | nap |  |  |  |  |  |                                  |      | g49268<br>29 | 80 | 164 | 0.0029      |  | (AC004<br>135)<br>T17H7.<br>14<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165327 | ATU027<br>267 | ATL8C3<br>377:51<br>1..33        | nap |  |  |  |  |  |                                  |      | g45127<br>00 | 80 | 411 | 3.4e-<br>30 |  | (AC006<br>569)<br>putati  |

|        |               |                            |     |  |  |  |  |  |  |  |  |              |    |      |              |  |
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| 165328 | ATU027<br>268 | ATL8S1<br>9795:5<br>06..1  | nap |  |  |  |  |  |  |  |  | g46802<br>22 | 80 | 284  | 7.7e-<br>23  | ve AP2<br>domain<br>-<br>contai<br>ning<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165329 | ATU027<br>269 | ATL8C2<br>4359:1<br>256..1 | nap |  |  |  |  |  |  |  |  | g38602<br>52 | 80 | 1362 | 3.9e-<br>144 | (AC005<br>824)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]      |
| 165330 | ATU027<br>270 | ATL8C8<br>880:1.<br>.775   | nap |  |  |  |  |  |  |  |  | g45389<br>30 | 80 | 695  | 3.5e-<br>65  | (AL049<br>483)<br>putati<br>ve<br>peroxi<br>dase<br>[Arabi                                   |





|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |      |              |   |
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| 165338 | ATU027<br>278 | ATL8C3<br>333:21<br>62..1         | nap |  |  |  |  |  |  |  |  | g39133<br>66 | 80 | 2199 | 1.7e-<br>228 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>PUTATI<br>VE<br>RECEPT<br>OR<br>PROTEI<br>N<br>KINASE<br>CRINKL<br>Y4<br>PRECUR<br>SOR<br>[Zea<br>mays] |
| 165339 | ATU027<br>279 | ATL8C1<br>5491:4<br>395..2<br>168 | nap |  |  |  |  |  |  |  |  | g35488<br>10 | 80 | 477  | 8.1e-<br>48  | (AC005<br>313)<br>putati<br>ve<br>chloro<br>plast<br>nucleo<br>id DNA<br>bindin<br>g protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 165340 | ATU027<br>280 | ATL8S2<br>8818:1<br>..218         | nap |  |  |  |  |  |  |  |  | g37774<br>85 | 80 | 94   | 6.0e-<br>06  | (AB018<br>706)<br>ORF1<br>[Nitro<br>somona<br>s]  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |      |              |   |               |
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| 165341 | ATU027<br>281 | ATL8S2<br>6229:5<br>9..578        | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80 | 674  | 6.7e-<br>66  | (AC007<br>264)<br>hypo-<br>thetical<br>protein<br>[Arabidopsis<br>thaliana] | europa<br>eal |
| 165342 | ATU027<br>282 | ATL8S1<br>8826:1<br>..556         | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80 | 416  | 2.2e-<br>42  | (AJ235<br>271)<br>unknown<br>[Rickea<br>tsia<br>prowaz<br>eki]              |               |
| 165343 | ATU027<br>283 | ATL8C5<br>78:508<br>1..796<br>3   | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80 | 594  | 3.2e-<br>65  | PUTATI<br>VE AC<br>TRANSP<br>OSASE<br>(ORFA)<br>[Zea<br>mays]               |               |
| 165344 | ATU027<br>284 | ATL8C3<br>5436:3<br>777..2<br>240 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80 | 905  | 1.8e-<br>93  | (X9462<br>5)<br>amp-<br>bindin<br>g protei<br>n [Brass<br>ica<br>napus]     |               |
| 165345 | ATU027<br>285 | ATL8C3<br>3367:1<br>032..1        | nap |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80 | 1195 | 8.7e-<br>128 | (AF096<br>372)<br>No  |               |





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| 165349 | ATU027<br>289 | ATL8C3<br>8693:1<br>55..1         | nap |  |  |  |  |  |  |  | g34451<br>99 | 80 | 230  | 3.5e-<br>18  | (AC004<br>786)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 165350 | ATU027<br>290 | ATL8C3<br>2332:1<br>..1312        | nap |  |  |  |  |  |  |  | g35401<br>96 | 80 | 1293 | 2.2e-<br>128 | (AC004<br>260)<br>Putati<br>ve<br>amp-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165351 | ATU027<br>291 | ATL8C2<br>6718:3<br>102..4<br>109 | nap |  |  |  |  |  |  |  | g45876<br>08 | 80 | 159  | 9.8e-<br>12  | (AC006<br>951)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 165352 | ATU027<br>292 | ATL8C1<br>327:1.<br>.1004         | nap |  |  |  |  |  |  |  | g47339<br>82 | 80 | 1139 | 4.5e-<br>104 | (AC007<br>268)<br>hypoth<br>etical<br>protei<br>n   |



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| 165356 | ATU027<br>296 | ATL8C1<br>4738:1<br>975..1      | nap |  |  |  |  |  |  | g47739<br>20 | 80 | 1946 | 5.0e-<br>188 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 165357 | ATU027<br>297 | ATL8C3<br>0159:1<br>..184       | nap |  |  |  |  |  |  | g11715<br>03 | 80 | 128  | 1.8e-<br>08  | (X9536<br>3)<br>gamma-<br>thioni<br>n<br>[Capsi<br>cum<br>annuum<br>]                                |
| 165358 | ATU027<br>298 | ATL8C2<br>7934:7<br>09..46<br>0 | nap |  |  |  |  |  |  | g42204<br>78 | 80 | 366  |              | (AC006<br>069)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 165359 | ATU027<br>299 | ATL8C2<br>7875:1<br>627..1      | nap |  |  |  |  |  |  | g28275<br>46 | 80 | 993  |              | (AL021<br>635)<br>cytoch<br>rome<br>P450<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                 |     |  |  |  |                                  |      |              |    |      |             |  |
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| 165360 | ATU027<br>300 | ATL8C7<br>299:61<br>10..17<br>0 | nap |  |  |  | ATL8C7<br>299:23<br>70..17<br>72 | 0.99 | g42638<br>31 | 79 | 4256 | 0.0         | thalia<br>na]<br>(AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165361 | ATU027<br>301 | ATL8C2<br>0089:1<br>..876       | nap |  |  |  | ATL8C2<br>0089:8<br>9..876       | 0.98 | g18256<br>36 | 79 | 280  |             | (U8817<br>2)<br>ZK354.<br>3 gene<br>produc<br>t<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s]                                   |
| 165362 | ATU027<br>302 | ATL8S2<br>9251:5<br>09..5       | nap |  |  |  | ATL8S2<br>9251:4<br>63..10<br>7  | 0.98 | g18546<br>03 | 79 | 181  | 2.4e-<br>08 | (U4913<br>4) 70-<br>kDa<br>heat<br>shock<br>protei<br>n<br>[unide<br>ntifie<br>d soil<br>organi<br>sm]                       |
| 165363 | ATU027<br>303 | ATL8S1<br>1604:5                | nap |  |  |  | ATL8S1<br>1604:1                 | 0.97 | g45672<br>70 | 79 | 389  | 1.0e-<br>37 | (AC006<br>841)   |

|        |               |                                  |     |  |  |                                  |      |              |    |     |  |  |  |  |  |  |   |
|--------|---------------|----------------------------------|-----|--|--|----------------------------------|------|--------------|----|-----|--|--|--|--|--|--|---|
|        |               | 11..1                            |     |  |  | 74..7                            |      |              |    |     |  |  |  |  |  |  | unknown protein [Arabidopsis thaliana]                                    |
| 165364 | ATU027<br>304 | ATL8C4<br>3943:6<br>23..15<br>42 | nap |  |  | ATL8C4<br>3943:6<br>23..14<br>98 | 0.97 | g28327<br>09 | 79 | 962 |  |  |  |  |  |  | (AL021713) neoxanthin cleavage enzyme-like protein [Arabidopsis thaliana] |
| 165365 | ATU027<br>305 | ATL8C2<br>3842:1<br>320..4<br>99 | nap |  |  | ATL8C2<br>3842:1<br>216..5<br>32 | 0.96 | g27813<br>51 | 79 | 402 |  |  |  |  |  |  | (AC003113) F24O1.7 [Arabidopsis thaliana]                                 |
| 165366 | ATU027<br>306 | ATL8S1<br>8063:1<br>..412        | nap |  |  | ATL8S1<br>8063:3<br>3..206       | 0.95 | g45811<br>45 | 79 | 199 |  |  |  |  |  |  | (AC006919) putative transcriptor acetylase CBF1                           |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165367 | ATU027<br>307 | ATL8C2<br>4609:1<br>..1194       | nap |  |  |  |  | ATL8C2<br>4609:7<br>36..20<br>8  | 0.95 | g43888<br>26 | 79 | 841  | 3.7e-<br>82  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165368 | ATU027<br>308 | ATL8C3<br>1756:1<br>276..5<br>91 | nap |  |  |  |  | ATL8C3<br>1756:1<br>051..9<br>89 | 0.94 | g42042<br>60 | 79 | 195  | 5.4e-<br>16  | (AC005<br>223)<br>25568<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165369 | ATU027<br>309 | ATL8C3<br>0181:7<br>49..13<br>43 | nap |  |  |  |  | ATL8C3<br>0181:8<br>23..12<br>68 | 0.94 | g49268<br>23 | 79 | 175  | 1.0e-<br>18  | (AC004<br>135)<br>T17H7.<br>8<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165370 | ATU027<br>310 | ATL8C3<br>5095:8<br>2..334<br>3  | nap |  |  |  |  | ATL8C3<br>5095:1<br>10..10<br>12 | 0.93 | g37383<br>37 | 79 | 3016 | 1.9e-<br>302 | (AC005<br>170)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                 |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 165371 | ATU027<br>311 | ATL8S2<br>9744:1<br>..404         | nap |  |  |  | ATL8S2<br>9744:3<br>9..386        | 0.92 | g32419<br>71 | 79 | 205 | 1.8e-<br>18 | thalia<br>na]<br>(U7958<br>0)<br>ChpC<br>[Pseud<br>omonas<br>aerugi<br>nosai]          |
| 165372 | ATU027<br>312 | ATL8C3<br>7497:3<br>170..2<br>003 | nap |  |  |  | ATL8C3<br>7497:2<br>956..2<br>003 | 0.92 | g42205<br>14 | 79 | 678 |             | (AL035<br>356)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 165373 | ATU027<br>313 | ATL8S1<br>0512:1<br>..495         | nap |  |  |  | ATL8S1<br>0512:1<br>30..49<br>5   | 0.92 | g45673<br>15 | 79 | 96  | 1.0e-<br>10 | (AC005<br>956)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165374 | ATU027<br>314 | ATL8C4<br>8201:6<br>41..96        | nap |  |  |  | ATL8C4<br>8201:4<br>97..97        | 0.91 | g47339<br>95 | 79 | 489 | 5.9e-<br>50 | (AC007<br>188)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165375 | ATU027        | ATL8S1                            | nap |  |  |  | ATL8S1                            | 0.90 | g28298       | 79 | 485 | 9.3e-       | (AC002   |

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|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
|        | 315           | 0573:1<br>..556                   |     |  |  |  | 0573:2<br>07..53<br>2             |      | 73           |    |     | 38          | 396)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 165376 | ATU027<br>316 | ATL8C1<br>4413:3<br>717..2<br>556 | nap |  |  |  | ATL8C1<br>4413:3<br>546..2<br>556 | 0.90 | g20621<br>67 | 79 | 653 | 1.8e-<br>62 | (AC001<br>645)<br>Prolin<br>e-rich<br>protei<br>n APG<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165377 | ATU027<br>317 | ATL8C3<br>2678:1<br>708..3<br>86  | nap |  |  |  | ATL8C3<br>2678:9<br>90..38<br>6   | 0.89 | g26243<br>28 | 79 | 122 | 1.5e-<br>11 | (AJ002<br>894)<br>OsGRP2<br>[Oryza<br>sativa<br>]  |
| 165378 | ATU027<br>318 | ATL8S1<br>8570:1<br>..517         | nap |  |  |  | ATL8S1<br>8570:2<br>60..49<br>2   | 0.88 | g28978<br>73 | 79 | 223 | 2.7e-<br>20 | (U8151<br>6)<br>unknow<br>n<br>[Myxoc<br>occus<br>xanthu<br>s]                                       |
| 165379 | ATU027<br>319 | ATL8C8<br>058:1.<br>.702          | nap |  |  |  | ATL8C8<br>058:14<br>..671         | 0.86 | g28092<br>35 | 79 | 118 | 1.7e-<br>11 | (AC002<br>560)<br>F21B7.<br>4<br>[Arabi<br>dopsis  |



|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|-------------|--|
| 165380 | ATU027<br>320 | ATL8S6<br>191:1.<br>.415   | nap |  |  |  |  | ATL8S6<br>191:56<br>.415         | 0.85 | g17033<br>50 | 79 | 360  |             | thalia<br>na]  |
| 165381 | ATU027<br>321 | ATL8C1<br>0424:1<br>.1399  | nap |  |  |  |  | ATL8C1<br>0424:6<br>08..13<br>98 | 0.84 | g21601<br>63 | 79 | 1525 |             | (AC000<br>132)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 165382 | ATU027<br>322 | ATL8S6<br>31:1..<br>637    | nap |  |  |  |  | ATL8S6<br>31:52.<br>.550         | 0.84 | g46894<br>52 | 79 | 364  | 7.7e-<br>36 | (AC006<br>267)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165383 | ATU027<br>323 | ATL8C4<br>8542:3<br>786..4 | nap |  |  |  |  | ATL8C4<br>8542:3<br>994..4       | 0.80 | g34137<br>10 | 79 | 592  | 2.4e-<br>62 | (AC004<br>747)<br>hypoth   |

|        |               |                                 |     |  |  |  |  |     |                                  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|-----|----------------------------------|------|--------------|----|------|--------------|--|
| 165384 | ATU027<br>324 | ATL8C6<br>770:32<br>39..1       | nap |  |  |  |  | 993 | ATL8C6<br>770:25<br>77..14<br>61 | 0.79 | g25831<br>30 | 79 | 2076 | 2.5e-<br>198 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165385 | ATU027<br>325 | ATL8C2<br>0685:1<br>..721       | nap |  |  |  |  |     | ATL8C2<br>0685:1<br>01..72<br>1  | 0.78 | g43097<br>03 | 79 | 917  | 9.4e-<br>61  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165386 | ATU027<br>326 | ATL8C1<br>6881:5<br>1..324<br>7 | nap |  |  |  |  |     | ATL8C1<br>6881:2<br>54..32<br>15 | 0.74 | g54865<br>9  | 79 | 708  | 1.4e-<br>67  | DNA<br>REPAIR<br>PROTEI<br>N<br>RAD16<br>[Schiz<br>osacch<br>aromyc                                  |

|        |               |                                  |     |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 165387 | ATU027<br>327 | ATL8C3<br>0523:1<br>896..4<br>37 | nap |  |  |  |  | ATL8C3<br>0523:1<br>863..4<br>37  | 0.74 | g40068<br>51 | 79 | 1632 | 1.4e-<br>152 | es<br>pombel<br>(Z9970<br>7)<br>cytoch<br>rome<br>P450-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                  |
| 165388 | ATU027<br>328 | ATL8S2<br>2234:1<br>..552        | nap |  |  |  |  | ATL8S2<br>2234:3<br>80..55<br>2   | 0.73 | g17179<br>75 | 79 | 209  | 4.4e-<br>20  | 14.5<br>KD<br>TRANSL<br>ATIONA<br>L<br>INHIBI<br>TOR<br>PROTEI<br>N<br>(P14.5<br>)<br>(UK114<br>ANTIGE<br>N<br>HOMOLO<br>G)<br>[Homo<br>sapien<br>sl] |
| 165389 | ATU027<br>329 | ATL8C2<br>8211:4<br>739..8<br>97 | nap |  |  |  |  | ATL8C2<br>8211:4<br>739..1<br>099 | 0.73 | g42636<br>55 | 79 | 2345 | 2.2e-<br>270 | (AC006<br>136)<br>putati<br>ve<br>revers<br>e<br>transc   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |             |  |
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| 165390 | ATU027<br>330 | ATL8C3<br>5187:1<br>..1722       | nap |  |  |  |  | ATL8C3<br>5187:5<br>70..16<br>66 | 0.73 | g30470<br>83 | 79 | 935  | 6.4e-<br>71 | riptase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |             | (AF058<br>914)<br>simila<br>r to<br>FLAP<br>endonu<br>clease<br>-1<br>(SW:P3<br>9748)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165391 | ATU027<br>331 | ATL8C4<br>189:84<br>..497        | nap |  |  |  |  | ATL8C4<br>189:12<br>0..489       | 0.72 | g46893<br>66 | 79 | 120  | 2.9e-<br>06 | (AF134<br>155)<br>RING<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |             | (AC005<br>824)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 165392 | ATU027<br>332 | ATL8C4<br>3970:6<br>58..21<br>91 | nap |  |  |  |  | ATL8C4<br>3970:6<br>61..19<br>18 | 0.71 | g38602<br>67 | 79 | 1499 |             |  |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 165393 | ATU027<br>333 | ATL8C3<br>9202:1<br>..835         | nap |  |  |  | ATL8C3<br>9202:5<br>7..835        | 0.70 | g44173<br>07 | 79 | 957  | 2.0e-<br>96  | (AC006<br>446)<br>putati<br>ve pol<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 165394 | ATU027<br>334 | ATL8C1<br>2735:2<br>365..1        | nap |  |  |  | ATL8C1<br>2735:2<br>097..1<br>042 | 0.68 | g27393<br>74 | 79 | 1090 | 1.2e-<br>117 | (AC002<br>505)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 165395 | ATU027<br>335 | ATL8S1<br>0191:1<br>..435         | nap |  |  |  | ATL8S1<br>0191:1<br>18..43<br>5   | 0.68 | g22424       | 79 | 686  | 8.4e-<br>67  | (X5757<br>5)<br>polyga<br>lactur<br>onase<br>[Zea<br>mays]   |
| 165396 | ATU027<br>336 | ATL8C1<br>6962:3<br>392..6<br>171 | nap |  |  |  | ATL8C1<br>6962:3<br>392..6<br>161 | 0.67 | g31842<br>91 | 79 | 2651 | 3.0e-<br>211 | (AC004<br>136)<br>putati<br>ve DNA<br>polyme<br>rase<br>III<br>gamma<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia] |





|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |   |
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| 165400 | ATU027<br>340 | ATL8C4<br>4175:2<br>04..37<br>89  | nap |  |  |  |  |  | ATL8C4<br>4175:3<br>642..3<br>544 | 0.64 | g40068<br>33 | 79 | 2913 | 4.3e-<br>311 | thalia<br>nal;<br>(AC006<br>955)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165401 | ATU027<br>341 | ATL8C3<br>8054:1<br>975..1        | nap |  |  |  |  |  | ATL8C3<br>8054:1<br>865..9<br>56  | 0.64 | g46801<br>80 | 79 | 1889 | 2.3e-<br>190 | (AF111<br>709)<br>polypr<br>oteins<br>[Oryza<br>sativa<br>subsp.<br>indica<br>]                           |
| 165402 | ATU027<br>342 | ATL8C3<br>6863:1<br>958..4<br>420 | nap |  |  |  |  |  | ATL8C3<br>6863:1<br>958..4<br>361 | 0.63 | g30969<br>19 | 79 | 1578 | 7.5e-<br>119 | (AL023<br>094)<br>putati<br>ve<br>serine<br>/threo  |







|        |               |                            |     |  |  |  |  |                                 |      |              |    |      |              |   |
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| 165407 | ATU027<br>347 | ATL8C5<br>0057:1<br>720..1 | nap |  |  |  |  | ATL8C5<br>0057:1<br>720..9<br>4 | 0.55 | g45392<br>98 | 79 | 1842 | 4.1e-<br>179 | (AL049<br>480)<br>putati<br>ve<br>calmod<br>ulin-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165408 | ATU027<br>348 | ATL8C6<br>650:76<br>..475  | nap |  |  |  |  | ATL8C6<br>650:76<br>..189       | 0.54 | g21480<br>45 | 79 | 80   | 0.071        | self-<br>incomp<br>atibil<br>ity<br>protei  |

|        |               |                                  |     |  |  |  |  |  |  |      |  |                                   |  |  |  |                               |        |               |              |   |
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| 165409 | ATU027<br>349 | ATL8C1<br>2095:1<br>255..7<br>7  | nap |  |  |  |  |  |  | 0.50 |  | ATL8C1<br>2095:1<br>193..7<br>7   |  |  |  | g28322<br>44                  | 79     | 1202          | 4.1e-<br>112 | n S3<br>precu-<br>sor -<br>Papave<br>r<br>rheas<br>[Papav<br>er<br>rheas<br>]   |
| 165410 | ATU027<br>350 | ATL8C2<br>0903:1<br>518..1       | nap |  |  |  |  |  |  | 0.49 |  | ATL8C2<br>0903:1<br>518..2<br>1   |  |  |  | g41853<br>10                  | 79     | 2122          | 1.4e-<br>196 | (AF031<br>569)<br>hypoth<br>etical<br>protei<br>n<br>[Zea<br>mays]  |
| 165411 | ATU027<br>351 | ATL8C4<br>3368:7<br>276..2<br>93 | nap |  |  |  |  |  |  | 0.49 |  | ATL8C4<br>3368:6<br>535..2<br>391 |  |  |  | g42635<br>44,<br>g33193<br>60 | 79, 56 | 3566,<br>1796 |              | (AF090<br>446)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |
|        |               |                                  |     |  |  |  |  |  |  |      |  |                                   |  |  |  |                               |        |               |              | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF077 |

[illegible]

|        |               |                                 |     |  |  |  |  |  |                                  |      |              |    |      |             |   |
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| 165413 | ATU027<br>353 | ATL8C1<br>437:99<br>8..243<br>8 | nap |  |  |  |  |  | ATL8C1<br>437:23<br>66..12<br>98 | 0.45 | g36953<br>97 | 79 | 1149 | 5.8e-<br>88 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165414 | ATU027<br>354 | ATL8C4<br>3530:1<br>..1353      | nap |  |  |  |  |  | ATL8C4<br>3530:3<br>8..675       | 0.44 | g38343<br>19 | 79 | 700  |             | (AC005<br>679)<br>Simila<br>r to<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165415 | ATU027<br>355 | ATL8S1<br>7235:4<br>65..1       | nap |  |  |  |  |  | ATL8S1<br>7235:4<br>65..25       | 0.44 | g27088<br>01 | 79 | 235  | 7.0e-<br>13 | (AF035<br>751)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hococc<br>us<br>PCC700<br>2]                                       |
| 165416 | ATU027<br>356 | ATL8C3<br>8950:1<br>062..1      | nap |  |  |  |  |  |                                  |      | g35488<br>00 | 79 | 451  | 2.1e-<br>48 | (AC005<br>313)<br>putati<br>ve<br>diseas<br>e   |

|        |               |                                   |     |  |  |  |  |  |  |  |              |    |     |             |   |
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| 165417 | ATU027<br>357 | ATL8C3<br>7620:7<br>99..1         | nap |  |  |  |  |  |  |  | g37023<br>39 | 79 | 473 | 4.3e-<br>49 | (AC005<br>397)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165418 | ATU027<br>358 | ATL8S1<br>6803:1<br>62..62<br>4   | nap |  |  |  |  |  |  |  | g17426<br>87 | 79 | 288 | 3.5e-<br>21 | (D9080<br>6)<br>Ferro-<br>oxin<br>II.<br>[Esche<br>richia<br>coli]        |
| 165419 | ATU027<br>359 | ATL8C4<br>9508:1<br>47..76<br>2   | nap |  |  |  |  |  |  |  | g42621<br>78 | 79 | 589 | 7.5e-<br>40 | (AC005<br>508)<br>25726<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 165420 | ATU027<br>360 | ATL8C3<br>6652:3<br>804..4<br>551 | nap |  |  |  |  |  |  |  | g33416<br>91 | 79 | 953 | 1.6e-<br>43 | (AC003<br>672)<br>putati<br>ve<br>hetero<br>geneou<br>s                   |

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| 165421 | ATU027<br>361 | ATL8C4<br>1784:1<br>..608        | nap |  |  |  |  |  |  | g45393<br>91 | 79 | 754  | 4.5e-<br>78 | (AL035<br>526)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]     |
| 165422 | ATU027<br>362 | ATL8C4<br>8534:2<br>62..14<br>82 | nap |  |  |  |  |  |  | g31842<br>90 | 79 | 1580 | 4.4e-<br>83 | (AC004<br>136)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165423 | ATU027<br>363 | ATL8S1<br>5415:1<br>..358        | nap |  |  |  |  |  |  | g18772<br>55 | 79 | 357  | 1.1e-<br>32 | (Z9277<br>0)<br>hypoth<br>etical<br>protei<br>n<br>Rv0130<br>[Mycob<br>acteri<br>um]    |





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| 165428 | ATU027<br>368 | ATL8C2<br>2271:4<br>43..1         | nap |  |  |  |  |  |  | g19463<br>67 | 79 | 157  | 6.1e-<br>14  | (U9321<br>5)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 165429 | ATU027<br>369 | ATL8S4<br>886:57<br>0..1          | nap |  |  |  |  |  |  | g42621<br>45 | 79 | 818  | 9.6e-<br>76  | (AC005<br>275)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165430 | ATU027<br>370 | ATL8C1<br>3293:2<br>164..1<br>184 | nap |  |  |  |  |  |  | g45899<br>54 | 79 | 477  | 2.4e-<br>27  | (AC007<br>169)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165431 | ATU027<br>371 | ATL8C8<br>61:248<br>9..660        | nap |  |  |  |  |  |  | g44688<br>04 | 79 | 1051 | 9.4e-<br>130 | (AL035<br>601)<br>putati<br>ve<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]     |

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| 165432 | ATU027<br>372 | ATL8C4<br>9637:1<br>..524        | nap |  |  |  |  |  |  | g20671<br>6  | 79 | 131  | 0.0010       | (M6479<br>1)<br>saliva<br>ry<br>prolin<br>e-rich<br>protei<br>n<br>[Rattu<br>s<br>norveg<br>icus] |
| 165433 | ATU027<br>373 | ATL8C3<br>314:18<br>47..1        | nap |  |  |  |  |  |  | g32427<br>13 | 79 | 2497 | 2.4e-<br>237 | (AC003<br>040)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 165434 | ATU027<br>374 | ATL8C3<br>1207:2<br>962..1<br>73 | nap |  |  |  |  |  |  | g38735<br>50 | 79 | 100  | 0.99         | (AL033<br>534)<br>serine<br>-rich<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe]    |
| 165435 | ATU027<br>375 | ATL8C2<br>354:96<br>2..1         | nap |  |  |  |  |  |  | g45394<br>30 | 79 | 451  | 3.4e-<br>51  | (AL049<br>171)<br>putati<br>ve<br>protei<br>n<br>[Arabi   |



|        |               |                                  |     |  |  |  |  |  |   |               |              |    |      |             |   |
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| 165441 | ATU027<br>381 | ATL8C9<br>813:17<br>14..87<br>81 | nap |  |  |  |  |  | ATL8C9<br>813:17<br>14..76<br>91,<br>ATL8C9<br>813:83<br>77..87<br>72 | 0.92,<br>0.80 | g43097<br>65 | 78 | 4038 | 0.0         | bindin<br>g<br>protei<br>n<br>[strep<br>tomyce<br>s<br>coelic<br>olor]<br>(AC006<br>217)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(Z9734<br>0)<br>simila<br>rity<br>to<br>copia-<br>like<br>retrot<br>ranspo<br>son<br>[Arabi<br>dopsis<br>thalia<br>na]<br>HYPOTH<br>ETICAL<br>23.2<br>KD |
| 165442 | ATU027<br>382 | ATL8C3<br>4552:9<br>21..75       | nap |  |  |  |  |  | ATL8C3<br>4552:8<br>95..75  | 0.92          | g22449<br>60 | 78 | 893  | 2.3e-<br>88 |   |
| 165443 | ATU027<br>383 | ATL8S2<br>0155:4<br>82..1        | nap |  |  |  |  |  | ATL8S2<br>0155:4<br>62..72  | 0.90          | g14038<br>9  | 78 | 236  | 3.0e-<br>22 |   |

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| 165444 | ATU027<br>384 | ATL8C1<br>5915:1<br>54...36<br>35 | nap |  |  |  |  |  | ATL8C1<br>5915:1<br>74...35<br>41                                       | 0.90          | g26424<br>31 | 78 | 3485 | 0.0          | PROTEIN IN<br>RNE-<br>RPMF<br>INTERG<br>ENIC<br>REGION<br>(ORFY)<br>[Esche<br>richia<br>coli]               |
| 165445 | ATU027<br>385 | ATL8C3<br>3836:1<br>...5035       | nap |  |  |  |  |  | ATL8C3<br>3836:1<br>08...36<br>9,<br>ATL8C3<br>3836:4<br>946...4<br>772 | 0.87,<br>0.88 | g42638<br>31 | 78 | 4493 |              | (AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165446 | ATU027<br>386 | ATL8C2<br>1674:1<br>...3380       | nap |  |  |  |  |  | ATL8C2<br>1674:5<br>09...32   | 0.87          | g30470<br>72 | 78 | 3032 | 7.7e-<br>229 | (AF058<br>825)<br>No  |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165449 | ATU027<br>389 | ATL8C5<br>580:15<br>10..23<br>8  | nap |  |  |  | ATL8C5<br>580:14<br>57..23<br>8  | 0.85 | g14028<br>94 | 78 | 457  | 2.3e-<br>48  | (X9686<br>7)<br>adenin<br>e<br>phosph<br>oribos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165450 | ATU027<br>390 | ATL8C2<br>3917:9<br>21..29<br>16 | nap |  |  |  | ATL8C2<br>3917:9<br>21..22<br>20 | 0.84 | g47551<br>87 | 78 | 1532 | 2.2e-<br>143 | (AC007<br>018)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 165451 | ATU027<br>391 | ATL8C3<br>8833:6<br>52..15<br>45 | nap |  |  |  | ATL8C3<br>8833:6<br>82..13<br>86 | 0.83 | g72910<br>2  | 78 | 519  | 3.2e-<br>50  | CHALCO<br>NE--<br>FLAVON<br>ONE<br>ISOMER<br>ASE<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 165452 | ATU027<br>392 | ATL8C2<br>4253:2<br>556..4<br>00 | nap |  |  |  | ATL8C2<br>4253:2<br>201..6<br>48 | 0.83 | g22621<br>05 | 78 | 1733 | 2.9e-<br>167 | (AC002<br>343)<br>unknown<br>n<br>protei<br>n   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165453 | ATU027<br>393 | ATL8C4<br>2594:9<br>30..1        | nap |  |  |  |  | ATL8C4<br>2594:7<br>86..11<br>9  | 0.83 | g47339<br>82 | 78 | 872  | 5.1e-<br>88  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>268)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165454 | ATU027<br>394 | ATL8C1<br>4575:1<br>053..2<br>12 | nap |  |  |  |  | ATL8C1<br>4575:7<br>37..21<br>2  | 0.81 | g46783<br>74 | 78 | 175  | 1.3e-<br>08  | (AL049<br>656)<br>myb-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165455 | ATU027<br>395 | ATL8C9<br>347:22<br>87..1        | nap |  |  |  |  | ATL8C9<br>347:20<br>28..28       | 0.81 | g46512<br>02 | 78 | 1215 | 2.9e-<br>113 | (AB026<br>253)<br>copper<br>amine<br>oxidas<br>e<br>[Pisum<br>sativu<br>m]  |
| 165456 | ATU027<br>396 | ATL8C4<br>8046:1<br>39..19<br>83 | nap |  |  |  |  | ATL8C4<br>8046:1<br>39..19<br>54 | 0.77 | g45126<br>61 | 78 | 289  | 7.2e-<br>22  | (AC006<br>931)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi   |



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|--------|---------------|----|-----|--|--|--|--|--|---|----------------------------------|------|--------------|----|------|--------------|--|
| 165461 | ATU027<br>401 | 79 | nap |  |  |  |  |  | 9 | ATL8C2<br>9572:2<br>992..8<br>76 | 0.69 | g33778<br>16 | 78 | 2960 | 3.5e-<br>272 | etical<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombel]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165462 | ATU027<br>402 |    | nap |  |  |  |  |  |   | ATL8C4<br>4262:1<br>646..3<br>30 | 0.67 | g45860<br>66 | 78 | 1669 | 7.4e-<br>182 | (AC006<br>194)<br>putati<br>ve pol<br>polypr<br>oteins,<br>3'<br>partia<br>l<br>[Arabi<br>dopsis   |

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| 165463 | ATU027<br>403 | ATL8C1<br>6030:6<br>08..31<br>11 | nap |  |  |  |  |  |  | g45570<br>78 | 78 | 2164 | 4.7e-<br>217 | thalia<br>na]<br>(AC007<br>045)<br>putati<br>ve<br>Ta11-1<br>pol<br>polypr<br>oteins,<br>5'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165464 | ATU027<br>404 | ATL8C2<br>5167:1<br>492..1       | nap |  |  |  |  |  |  | g44552<br>16 | 78 | 716  | 3.0e-<br>69  | (AL035<br>440)<br>putati<br>ve<br>myb-<br>relate<br>d<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 165465 | ATU027<br>405 | ATL8C4<br>7104:1<br>267..1<br>92 | nap |  |  |  |  |  |  | g47739<br>10 | 78 | 113  | 3.2e-<br>05  | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia   |

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| 165466 | ATU027<br>406 | ATL8C3<br>2577:1<br>585..2<br>494 | nap |  |  |  | ATL8C3<br>2577:1<br>585..2<br>359 | 0.63 | g13635<br>28 | 78 | 1245 | 5.5e-<br>108 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]   |
| 165467 | ATU027<br>407 | ATL8C1<br>0906:1<br>..3573        | nap |  |  |  | ATL8C1<br>0906:1<br>815..3<br>573 | 0.63 | g45393<br>94 | 78 | 1245 | 1.3e-<br>126 | (AL035<br>526)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 165468 | ATU027<br>408 | ATL8C8<br>217:21<br>28..1         | nap |  |  |  | ATL8C8<br>217:20<br>48..39<br>2   | 0.62 | g44163<br>01 | 78 | 2423 | 9.1e-<br>206 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]                                  |
| 165469 | ATU027<br>409 | ATL8C2<br>1867:1<br>415..1        | nap |  |  |  | ATL8C2<br>1867:1<br>415..2<br>07  | 0.62 | g45858<br>84 | 78 | 462  | 1.5e-<br>39  | (AC005<br>850)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165470 | ATU027<br>410 | ATL8C2<br>6244:1<br>..2449        | nap |  |  |  | ATL8C2<br>6244:2<br>57..18<br>07  | 0.60 | g22450<br>71 | 78 | 2588 | 6.0e-<br>223 | (Z9734<br>2)<br>hypoth<br>etical<br>protei<br>n  |

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| 165471 | ATU027<br>411 | ATL8C1<br>334:13<br>62..1        | nap |  |  |  |  |  | ATL8C1<br>334:11<br>27..56<br>1  | 0.59 | g42630<br>62 | 78 | 394 | 8.2e-<br>36 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165472 | ATU027<br>412 | ATL8C4<br>7681:1<br>..900        | nap |  |  |  |  |  | ATL8C4<br>7681:6<br>8..894       | 0.59 | g31842<br>74 | 78 | 228 | 9.5e-<br>36 | (AC004<br>136)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 165473 | ATU027<br>413 | ATL8C6<br>42:201<br>6..281       | nap |  |  |  |  |  | ATL8C6<br>42:169<br>5..461       | 0.58 | g37860<br>13 | 78 | 438 | 5.5e-<br>42 | (AC005<br>499)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 165474 | ATU027<br>414 | ATL8C2<br>5130:5<br>21..18<br>02 | nap |  |  |  |  |  | ATL8C2<br>5130:5<br>21..16<br>57 | 0.58 | g54897<br>6  | 78 | 110 | 0.0026      | SUPPRE<br>SSOR<br>PROTEI<br>N<br>SRP40<br>[Sacch  |

|        |               |                                  |     |  |  |  |                                   |      |              |    |      |             |   |
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| 165475 | ATU027<br>415 | ATL8C1<br>2388:2<br>68..22<br>46 | nap |  |  |  | ATL8C1<br>2388:1<br>161..2<br>246 | 0.57 | g43503<br>9  | 78 | 26   | 0.9997      | aromyc<br>es<br>cerevi<br>siae]<br>(L1730<br>8)<br>prolin<br>e-rich<br>cell<br>wall<br>protei<br>n<br>[Gossy<br>pium<br>hirsut<br>um] |
| 165476 | ATU027<br>416 | ATL8C1<br>7349:5<br>330..1       | nap |  |  |  | ATL8C1<br>7349:5<br>273..6<br>62  | 0.56 | g45443<br>72 | 78 | 3601 | 0.0         | (AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 165477 | ATU027<br>417 | ATL8C2<br>4295:1<br>..890        | nap |  |  |  | ATL8C2<br>4295:2<br>0..890        | 0.56 | g44552<br>97 | 78 | 734  | 2.5e-<br>72 | (AL035<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165478 | ATU027        | ATL8C4                           | nap |  |  |  | ATL8C4                            | 0.56 | g47551       | 78 | 498  | 2.9e-       | (AC007  |

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| 165479 | 418           | 7847:8<br>85..16<br>70     |     |  |  |  |  | 7847:8<br>85..11<br>80           | 98   |              |    | 45   | 018)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
|        | ATU027<br>419 | ATL8C1<br>828:1.<br>.1475  | nap |  |  |  |  | ATL8C1<br>828:60<br>..1466       | 0.54 | 944540<br>43 | 78 | 1010 | 2.6e-<br>69<br>putati<br>ve<br>recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 165480 | ATU027<br>420 | ATL8C2<br>735:1.<br>.1181  | nap |  |  |  |  | ATL8C2<br>735:45<br>8..723       | 0.53 | 938941<br>70 | 78 | 547  | 2.5e-<br>43<br>putati<br>ve<br>glutat<br>hione<br>s-<br>transf<br>erese<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165481 | ATU027<br>421 | ATL8C1<br>078:25<br>97..84 | nap |  |  |  |  | ATL8C1<br>078:24<br>03..18<br>01 | 0.52 | 945811<br>67 | 78 | 808  | 3.1e-<br>91<br>putati<br>ve<br>transp  |



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| 165482 | ATU027<br>422 | ATL8C8<br>667:17<br>79..1 | nap |  |  |  |  | ATL8C8<br>667:17<br>79..49 | 0.51 | g43097<br>04 | 78 | 1638 | 7.5e-<br>141 | oson<br>MuDR<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165483 | ATU027<br>423 | ATL8S2<br>0131:3<br>64..1 | nap |  |  |  |  | ATL8S2<br>0131:3<br>64..2  | 0.49 | g20766<br>70 | 78 | 165  | 6.8e-<br>17  | (Z9515<br>0)<br>hypoth<br>etical<br>protei<br>n<br>Rv3095<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 165484 | ATU027<br>424 | ATL8C2<br>96:424<br>..1   | nap |  |  |  |  | ATL8C2<br>96:424<br>..55   | 0.45 | g22448<br>58 | 78 | 560  | 1.8e-<br>52  | (Z9733<br>7) S-<br>linalo<br>ol<br>syntha<br>se<br>homolo  |

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| 165485 | ATU027<br>425 | ATL8C2<br>1737:2<br>15..18<br>07  | nap |  |  |  |  |  | ATL8C2<br>1737:2<br>15..13<br>56  | 0.45 | g45809<br>90 | 78 | 870  | 2.2e-<br>101 | g<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165486 | ATU027<br>426 | ATL8C2<br>127:1.<br>.463          | nap |  |  |  |  |  | ATL8C2<br>127:88<br>..337         | 0.45 | g48862<br>86 | 78 | 521  | 2.9e-<br>36  | (AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 165487 | ATU027<br>427 | ATL8C1<br>5690:1<br>339..1<br>750 | nap |  |  |  |  |  | ATL8C1<br>5690:1<br>339..1<br>743 | 0.41 | g40564<br>97 | 78 | 352  | 5.4e-<br>20  | (AC005<br>896)<br>putati<br>ve<br>histon<br>e H2B<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165488 | ATU027<br>428 | ATL8C3<br>4596:4<br>89..34<br>89  | nap |  |  |  |  |  |                                   |      | g22583<br>17 | 78 | 1453 | 1.2e-<br>159 | (AF004<br>879)<br>resist<br>ance<br>comple   |

|        |               |                                  |     |  |  |  |  |  |  |  |  |  |               |        |             |              |  |  |
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| 165489 | ATU027<br>429 | ATL8S1<br>0068:4<br>85..47       | nap |  |  |  |  |  |  |  |  |  | g10018<br>03  | 78     | 201         | 1.9e-<br>09  | (D6400<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]                    | x<br>protei<br>n I2C-<br>2<br>[Lycop<br>ersico<br>n<br>escule<br>ntum] |
| 165490 | ATU027<br>430 | ATL8C1<br>270:51<br>52..74<br>91 | nap |  |  |  |  |  |  |  |  |  | g47738<br>81  | 78     | 1185        | 3.3e-<br>118 | (AF076<br>243)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 165491 | ATU027<br>431 | ATL8S1<br>362:35<br>5..631       | nap |  |  |  |  |  |  |  |  |  | g40975<br>87  | 78     | 112         | 1.9e-<br>09  | (U6492<br>6)<br>NTGP5<br>[Nicot<br>iana<br>tabacu<br>m]  |  |
| 165492 | ATU027<br>432 | ATL8S7<br>299:54                 | nap |  |  |  |  |  |  |  |  |  | g30254<br>60, | 78, 77 | 180,<br>119 | 7.2e-<br>19, | (U5813<br>1)   |  |

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| 165493 | ATU027<br>433 | ATL8S5<br>37:172<br>..433         | nap |  |  |  |  |  |  |  | g26358<br>05 |    |     |             | 3.8e-<br>07 | PhoP<br>[Clost<br>ridium<br>acetob<br>utylic<br>um];<br>(Z9912<br>0)<br>simila<br>r to<br>two-<br>compon<br>ent<br>respon<br>se<br>regula<br>tor<br>[Bacil<br>lus<br>subtil<br>is] |
| 165494 | ATU027<br>434 | ATL8C4<br>2340:1<br>673..6<br>304 | nap |  |  |  |  |  |  |  | g46999<br>44 | 78 | 138 | 0.9999<br>5 | 7.9e-<br>07 | (M3691<br>3)<br>cell<br>wall<br>protei<br>n<br>(put.)<br>;<br>putati<br>ve<br>[Zea<br>mays]  |
|        |               |                                   |     |  |  |  |  |  |  |  |              |    |     |             |             | (AC007<br>166)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi  |

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| 165495 | ATU027<br>435 | ATL8C9<br>392:1.<br>.556          | nap |  |  |  |  |  |  |  |  |  | g42621<br>75 | 78 | 351 | 7.5e-<br>32 | dopsis<br>thalia<br>nal<br>(AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 165496 | ATU027<br>436 | ATL8C4<br>9939:4<br>008..3<br>228 | nap |  |  |  |  |  |  |  |  |  | g22450<br>40 | 78 | 995 | 2.7e-<br>69 | (Z9734<br>2)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 165497 | ATU027<br>437 | ATL8C4<br>8116:3<br>71..12<br>80  | nap |  |  |  |  |  |  |  |  |  | g31766<br>78 | 78 | 245 | 5.8e-<br>32 | (AC003<br>671)<br>Contai<br>ns<br>simila<br>rity<br>to MYB<br>transc<br>riptio<br>n<br>factor<br>isolog<br>T01024<br>.1<br>from<br>A.<br>thalia<br>na BAC<br>gb ACO<br>02335. |



[illegible][illegible]





|        |                         |                           |     |  |  |  |  |  |  |    |              |    |     |  |  |  |             |   |
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| 446    | 1876:4<br>835..1<br>890 |                           |     |  |  |  |  |  |  | 06 |              |    |     |  |  |  | 38          | 403)<br>putative<br>replication<br>factor<br>-A<br>protein<br>[Arabidopsis<br>thaliana] |
| 165507 | ATU027<br>447           | ATL8C3<br>395:18<br>8..1  | nap |  |  |  |  |  |  |    | g13131<br>1  | 78 | 152 |  |  |  | 6.5e-<br>06 | CYTOCH<br>ROME<br>B559<br>ALPHA<br>CHAIN<br>[Triti<br>cum<br>aestiv<br>um]              |
| 165508 | ATU027<br>448           | ATL8C2<br>0320:1<br>..859 | nap |  |  |  |  |  |  |    | g36876<br>88 | 78 | 174 |  |  |  | 1.5e-<br>11 | (AF057<br>027)<br>response<br>regulator<br>protein<br>[Brassica<br>napus]               |
| 165509 | ATU027<br>449           | ATL8C2<br>5900:7<br>31..1 | nap |  |  |  |  |  |  |    | g41026<br>90 | 78 | 68  |  |  |  | 0.0004<br>9 | (AF004<br>806)<br>24 kDa<br>seed<br>maturation<br>protein                               |





|        |               |                                   |     |  |  |  |  |                                 |      |              |    |      |          |   |
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| 165518 | ATU027<br>458 | ATL8C2<br>6512:1<br>986..1        | nap |  |  |  |  |                                 |      | g45811<br>64 | 78 | 1220 | 8.5e-130 | (AC006 220) putative polyprotein [Arabidopsis thaliana] |
| 165519 | ATU027<br>459 | ATL8C3<br>455:22<br>99..42<br>6   | nap |  |  |  |  |                                 |      | g28276<br>62 | 78 | 884  | 2.1e-102 | (AL021 637) Phosphorylase [Arabidopsis thaliana]        |
| 165520 | ATU027<br>460 | ATL8C4<br>5121:1<br>912..2<br>744 | nap |  |  |  |  |                                 |      | g45394<br>68 | 78 | 382  | 2.0e-24  | (AL049 500) putative protein [Arabidopsis thaliana]     |
| 165521 | ATU027<br>461 | ATL8S1<br>9371:4<br>18..1         | nap |  |  |  |  | ATL8S1<br>9371:4<br>18..15<br>3 | 0.99 | g11768<br>35 | 77 | 231  | 7.5e-19  | HYPOTHETICAL 19.6 KD PROTEIN IN                         |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |             |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|-------------|--|--|
|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |             |  | MURA-<br>RPON<br>INTERG<br>ENIC<br>REGION<br>PRECUR<br>SOR<br>(F183)<br>[Esche<br>richia<br>coli]          |
| 165522 | ATU027<br>462 | ATL8S6<br>606:50<br>8..1         | nap |  |  |  |  |  | ATL8S6<br>606:50<br>8..56        | 0.99 | g17238<br>88 | 77 | 368  |             |  | PROBAB<br>LE<br>TRANSC<br>RIPTIO<br>NAL<br>REGULA<br>TORY<br>PROTEI<br>N YGIX<br>[Esche<br>richia<br>coli] |
| 165523 | ATU027<br>463 | ATL8C4<br>3347:1<br>893..3<br>00 | nap |  |  |  |  |  | ATL8C4<br>3347:1<br>616..3<br>00 | 0.98 | g44328<br>01 | 77 | 1142 |             |  | (AC006<br>437)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                         |
| 165524 | ATU027<br>464 | ATL8S1<br>2657:4<br>5..399       | nap |  |  |  |  |  | ATL8S1<br>2657:4<br>5..350       | 0.98 | g16572<br>37 | 77 | 341  | 4.8e-<br>31 | (Y0910<br>2)<br>hypoth<br>etical<br>protei<br>n<br>[Acine] |  |

|        |               |                                    |     |  |  |  |  |                                    |      |              |    |      |              |  |
|--------|---------------|------------------------------------|-----|--|--|--|--|------------------------------------|------|--------------|----|------|--------------|--|
| 165525 | ATU027<br>465 | ATL8C2<br>4025:1<br>..892          | nap |  |  |  |  | ATL8C2<br>4025:1<br>57..89<br>2    | 0.96 | g45126<br>55 | 77 | 499  | 1.0e-<br>53  | (AC007<br>048)<br>putati<br>ve<br>protei<br>n<br>phosph<br>atase<br>2C<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 165526 | ATU027<br>466 | ATL8C3<br>5641:1<br>0656..<br>9226 | nap |  |  |  |  | ATL8C3<br>5641:1<br>0630..<br>9226 | 0.96 | g44552<br>21 | 77 | 1373 | 9.7e-<br>120 | (AL035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 165527 | ATU027<br>467 | ATL8S2<br>6021:4<br>65..13         | nap |  |  |  |  | ATL8S2<br>6021:2<br>17..13         | 0.95 | g31525<br>64 | 77 | 459  | 9.1e-<br>06  | (AC002<br>986)<br>Contai<br>ns<br>simila<br>rity<br>to<br>homeob<br>ox<br>protei<br>n 8<br>gb X16<br>849<br>from |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165528 | ATU027<br>468 | ATL8C1<br>213:17<br>07..35<br>57 | nap |  |  |  |  | ATL8C1<br>213:17<br>07..35<br>44 | 0.95 | g22135<br>94 | 77 | 1195 | 1.4e-<br>130 | (AC000<br>348)<br>T7N9.1<br>4<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165529 | ATU027<br>469 | ATL8C4<br>7176:1<br>..1440       | nap |  |  |  |  | ATL8C4<br>7176:6<br>3..140<br>1  | 0.94 | g45876<br>78 | 77 | 727  | 3.7e-<br>77  | (AC007<br>197)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>gene,<br>5,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165530 | ATU027<br>470 | ATL8C2<br>318:1.<br>.1064        | nap |  |  |  |  | ATL8C2<br>318:10<br>2..106<br>4  | 0.92 | g49143<br>30 | 77 | 887  | 2.5e-<br>93  | (AC005<br>489)<br>F14N23<br>.16<br>[Arabi<br>dopsis<br>thalia<br>na]   |

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| 165531 | ATU027<br>471 | ATL8C2<br>2010:4<br>71..1       | nap |  |  |  | ATL8C2<br>2010:4<br>71..16<br>1 | 0.90 | 944068<br>11 | 77 | 522  | 4.4e-<br>38 | (AC006<br>201)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165532 | ATU027<br>472 | ATL8C1<br>383:13<br>06..29<br>6 | nap |  |  |  | ATL8C1<br>383:12<br>48..38<br>1 | 0.88 | 944671<br>39 | 77 | 848  | 2.0e-<br>91 | (AL035<br>540)<br>putati<br>ve<br>protei<br>n<br>phosph<br>atase-<br>2c<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 165533 | ATU027<br>473 | ATL8C4<br>3572:1<br>911..3<br>7 | nap |  |  |  | ATL8C4<br>3572:1<br>615..3<br>7 | 0.87 | 946462<br>03 | 77 | 1383 |             | (AC007<br>230)<br>Belong<br>s to<br>PF1000<br>26<br>Eukary<br>otic<br>aspart<br>yl<br>protea<br>se<br>family<br>[Arabi<br>dopsis<br>thalia |



|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 165534 | ATU027<br>474 | ATL8C2<br>0724:2<br>398..5<br>965 | nap |  |  |  | ATL8C2<br>0724:3<br>634..5<br>965 | 0.85 | g42630<br>63 | 77 | 1633 | 6.9e-<br>138 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165535 | ATU027<br>475 | ATL8C4<br>2264:3<br>8..697        | nap |  |  |  | ATL8C4<br>2264:3<br>8..571        | 0.85 | g31282<br>21 | 77 | 863  | 8.0e-<br>80  | (AC004<br>077)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165536 | ATU027<br>476 | ATL8C3<br>7457:1<br>540..2<br>44  | nap |  |  |  | ATL8C3<br>7457:1<br>540..6<br>37  | 0.84 | g45103<br>85 | 77 | 634  |              | (AC007<br>017)<br>unknown<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 165537 | ATU027<br>477 | ATL8S4<br>268:46<br>5..1          | nap |  |  |  | ATL8S4<br>268:41<br>3..66         | 0.83 | g38605<br>96 | 77 | 285  | 4.5e-<br>27  | (AJ235<br>270)<br>unknown<br>[Ricke<br>ttsia<br>prowaz<br>ekil]                        |
| 165538 | ATU027        | ATL8S2                            | nap |  |  |  | ATL8S2                            | 0.81 | g35402       | 77 | 223  | 1.3e-        | (AC004   |



|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |   |
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|        |               | 6..360<br>9                       |     |  |  |  |  | 6..308<br>9                       |      |              |    |      |              | putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165542 | ATU027<br>482 | ATL8C1<br>0357:2<br>152..1<br>427 | nap |  |  |  |  | ATL8C1<br>0357:2<br>096..1<br>427 | 0.76 | g37765<br>77 | 77 | 683  |              | (AC005<br>388)<br>T22H22<br>.24<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165543 | ATU027<br>483 | ATL8C1<br>2246:3<br>135..1<br>425 | nap |  |  |  |  | ATL8C1<br>2246:3<br>134..1<br>425 | 0.76 | g44328<br>03 | 77 | 1188 | 3.3e-<br>112 | (AC006<br>437)<br>putati<br>ve<br>PttA2<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 165544 | ATU027<br>484 | ATL8C3<br>3781:1<br>..1563        | nap |  |  |  |  | ATL8C3<br>3781:1<br>16..15<br>63  | 0.75 | g24627<br>49 | 77 | 999  | 2.6e-<br>106 | (AC002<br>292)<br>Putati<br>ve<br>Serine<br>/Threo<br>nine<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia |

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| 165545 | ATU027<br>485 | ATL8C1<br>1455:1<br>..476         | nap |  |  |  | ATL8C1<br>1455:6<br>0..408        | 0.75 | g37383<br>26                  | 77     | 708          | 3.7e-<br>47                  | na]<br>(AC005<br>170)<br>putati<br>ve<br>noduli<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165546 | ATU027<br>486 | ATL8C3<br>6586:4<br>716..6<br>153 | nap |  |  |  | ATL8C3<br>6586:4<br>716..6<br>108 | 0.73 | g44552<br>03                  | 77     | 843          | 3.0e-<br>63                  | (AL035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 165547 | ATU027<br>487 | ATL8C3<br>3824:1<br>220..8<br>6   | nap |  |  |  | ATL8C3<br>3824:1<br>220..8<br>6   | 0.70 | g44172<br>85                  | 77     | 205          |                              | (AC007<br>019)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 165548 | ATU027<br>488 | ATL8C1<br>6780:3<br>821..1        | nap |  |  |  | ATL8C1<br>6780:3<br>821..8<br>3   | 0.70 | g47339<br>70,<br>g36953<br>87 | 77, 62 | 155,<br>2662 | 4.4e-<br>16,<br>4.5e-<br>218 | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |

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| 165549 | ATU027<br>489 | ATL8S9<br>389:40<br>2..1         | nap |  |  |  |  |  |  | 0.70 | g35229<br>54 | 77 | 400  | 1.0e-<br>25  | (AC004<br>411)<br>IAA20<br>[Arabi<br>dopsis<br>thalia<br>na]                           | na];<br>(AF096<br>371)<br>contai<br>ns<br>simila<br>rity<br>to<br>repl<br>ication<br>protei<br>n Al<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165550 | ATU027<br>490 | ATL8C1<br>6591:1<br>855..1       | nap |  |  |  |  |  |  | 0.70 | g38602<br>67 | 77 | 1490 | 2.6e-<br>153 | (AC005<br>824)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165551 | ATU027<br>491 | ATL8C1<br>0050:1<br>383..1<br>91 | nap |  |  |  |  |  |  | 0.68 | g40391<br>55 | 77 | 441  |              | (AF104<br>258)<br>putati<br>ve<br>copper<br>-<br>induci                                | (AF104<br>258)<br>putati<br>ve<br>copper<br>-<br>induci  |

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| 165552 | ATU027<br>492 | ATL8S3<br>0006:1<br>38..57<br>5 | nap |  |  |  |  |  | 0.66 | g29611<br>76 | 77 | 558 | 3.1e-<br>47 | (AF050<br>674)<br>riboso<br>mal<br>protei<br>n L27<br>precu<br>sor<br>[Oryza<br>sativa<br>]  | ble<br>35.6<br>kDa<br>protei<br>n<br>[Festu<br>ca<br>rubra] |
| 165553 | ATU027<br>493 | ATL8C2<br>4307:1<br>..1582      | nap |  |  |  |  |  | 0.66 | g31933<br>02 | 77 | 968 | 3.1e-<br>97 | (AF069<br>298)<br>contai<br>ns<br>simila<br>rity<br>to a<br>protei<br>n<br>kinase<br>domain<br>(Pfam:<br>pkinas<br>e.hmm,<br>score:<br>166.20<br>) and<br>to<br>legume<br>lectin<br>s beta |   |

|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 165554 | ATU027<br>494 | ATL8C4<br>3034:1<br>084..1 | nap |  |  |  |  |  | ATL8C4<br>3034:1<br>38..40      | 0.59 | g26424<br>42 | 77 | 1503 | 6.3e-<br>146 | domain<br>(Pfam:<br>lectin<br>_legB.<br>hmm,<br>score:<br>139.32<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165555 | ATU027<br>495 | ATL8C2<br>3301:1<br>..699  | nap |  |  |  |  |  | ATL8C2<br>3301:1<br>67..56<br>0 | 0.58 | g18413<br>99 | 77 | 267  | 6.7e-<br>26  | (Z3466<br>1)<br>AtTFII<br>B2<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165556 | ATU027<br>496 | ATL8C3<br>3110:1<br>..2576 | nap |  |  |  |  |  | ATL8C3<br>3110:8<br>1..242      | 0.58 | g30634<br>61 | 77 | 2550 | 2.8e-<br>266 | (AC003<br>981)<br>F22013   |

|        |               |                            |     |  |  |  |   |                                  |      |              |    |     |             |   |
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| 165557 | ATU027<br>497 | ATL8S2<br>1257:8<br>2..577 | nap |  |  |  | 7 | ATL8S2<br>1257:1<br>02..50<br>0  | 0.58 | g21268<br>50 | 77 | 275 | 1.9e-<br>25 | .23<br>[Arabi<br>dopsis<br>thalia<br>na]<br>cytoch<br>rome b<br>-<br>Bacill<br>us<br>stearo<br>thermo<br>philus<br>[Bacil<br>lus<br>stearo<br>thermo<br>philus<br>]         |
| 165558 | ATU027<br>498 | ATL8C1<br>3556:1<br>..1143 | nap |  |  |  |   | ATL8C1<br>3556:6<br>15..11<br>17 | 0.57 | g11725<br>55 | 77 | 276 | 8.1e-<br>23 | 34 KD<br>OUTER<br>MITOCH<br>ONDRIA<br>L<br>MEMBRA<br>NE<br>PROTEI<br>N<br>PORIN<br>(VOLTA<br>GE-<br>DEPEND<br>ENT<br>ANION-<br>SELECT<br>IVE<br>CHANNE<br>L<br>PROTEI<br>N) |



|        |               |                            |     |  |  |  |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 165559 | ATU027<br>499 | ATL8S7<br>18:1..<br>291    | nap |  |  |  |  |  |  | ATL8S7<br>18:105<br>..230       | 0.56 | g28297<br>57 | 77 | 130 | 7.5e-<br>09 | (VDAC)<br>(POM<br>34)<br>[Solani<br>um<br>tubero<br>sum]  |
| 165560 | ATU027<br>500 | ATL8S1<br>2831:5<br>43..1  | nap |  |  |  |  |  |  | ATL8S1<br>2831:4<br>78..12<br>2 | 0.56 | g14139<br>7  | 77 | 130 | 7.4e-<br>10 | MITOCH<br>ONDRIA<br>L<br>RIBOSO<br>MAL<br>PROTEI<br>N S12<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165561 | ATU027<br>501 | ATL8C4<br>80:135<br>2..166 | nap |  |  |  |  |  |  | ATL8C4<br>80:124<br>9..546      | 0.54 | g45394<br>30 | 77 | 202 | 1.8e-<br>20 | HYPOTH<br>ETICAL<br>OXIDOR<br>EDUCTA<br>SE IN<br>RTP-<br>PELB<br>INTERG<br>ENIC<br>REGION<br>(ORF23<br>8)<br>[Bacil<br>lus<br>subtil<br>is] |
|        |               |                            |     |  |  |  |  |  |  |                                 |      |              |    |     |             | (AL049<br>171)<br>putati<br>ve<br>protei<br>n   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165562 | ATU027<br>502 | ATL8C1<br>7021:2<br>750..4<br>48 | nap |  |  |  |  | ATL8C1<br>7021:2<br>453..5<br>95 | 0.53 | g33778<br>16 | 77 | 2731 | 5.1e-<br>244 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165563 | ATU027<br>503 | ATL8C3<br>4185:1<br>..1267       | nap |  |  |  |  | ATL8C3<br>4185:2<br>53..11<br>13 | 0.52 | g47739<br>18 | 77 | 1423 | 6.0e-<br>116 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165564 | ATU027<br>504 | ATL8C4<br>3189:1<br>..2185       | nap |  |  |  |  | ATL8C4<br>3189:1<br>08..16<br>88 | 0.52 | g40380<br>56 | 77 | 3008 | 6.4e-<br>304 | (AC005<br>897)<br>putati<br>ve  |

|        |               |                                    |     |  |  |  |  |                                    |      |              |    |      |              |  |
|--------|---------------|------------------------------------|-----|--|--|--|--|------------------------------------|------|--------------|----|------|--------------|--|
| 165565 | ATU027<br>505 | ATL8C4<br>1781:1<br>1997..<br>6960 | nap |  |  |  |  | ATL8C4<br>1781:1<br>1997..<br>8653 | 0.49 | g43887<br>19 | 77 | 1252 | 7.6e-<br>76  | transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>413)<br>putati<br>ve<br>myosin<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165566 | ATU027<br>506 | ATL8C2<br>1356:1<br>..972          | nap |  |  |  |  | ATL8C2<br>1356:2<br>35..86<br>9    | 0.49 | g24648<br>97 | 77 | 275  | 8.8e-<br>35  | (Z9970<br>8)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165567 | ATU027<br>507 | ATL8C3<br>5807:1<br>664..4<br>77   | nap |  |  |  |  | ATL8C3<br>5807:1<br>639..5<br>30   | 0.48 | g28574<br>1  | 77 | 300  | 2.3e-<br>23  | (D1455<br>0)<br>EDGP<br>precu<br>sor<br>[Daucu<br>s<br>carota<br>]   |
| 165568 | ATU027<br>508 | ATL8C3<br>2751:1<br>..4381         | nap |  |  |  |  | ATL8C3<br>2751:5<br>8..413         | 0.48 | g45443<br>72 | 77 | 3097 | 2.1e-<br>287 | (AC006<br>920)<br>putati   |

|        |               |                                  |     |  |  |  |  |  |   |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|---|----------------------------------|------|--------------|----|------|--------------|--|
| 165569 | ATU027<br>509 | ATL8C4<br>5302:5<br>00..1        | nap |  |  |  |  |  | 9 | ATL8C4<br>5302:3<br>10..36       | 0.47 | g41265<br>02 | 77 | 419  | 6.6e-<br>39  | ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 165570 | ATU027<br>510 | ATL8C4<br>8575:1<br>080..4<br>71 | nap |  |  |  |  |  |   | ATL8C4<br>8575:1<br>075..4<br>71 | 0.47 | g25586<br>58 | 77 | 70   | 7.6e-<br>06  | (AC002<br>354)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165571 | ATU027<br>511 | ATL8C3<br>436:33<br>65..19<br>1  | nap |  |  |  |  |  |   | ATL8C3<br>436:26<br>28..19<br>1  | 0.42 | g43887<br>19 | 77 | 2557 | 1.2e-<br>231 | (AC006<br>413)<br>putati<br>ve<br>myosin<br>-like  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165572 | ATU027<br>512 | ATL8C4<br>964:30<br>0..263<br>9  | nap |  |  |  |  | ATL8C4<br>964:30<br>0..253<br>0  | 0.42 | g45862<br>58 | 77 | 680  | 3.7e-<br>72  | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL049<br>640)<br>putati<br>ve<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165573 | ATU027<br>513 | ATL8C3<br>2262:3<br>29..21<br>89 | nap |  |  |  |  | ATL8C3<br>2262:3<br>29..21<br>40 | 0.42 | g43253<br>51 | 77 | 2697 | 4.4e-<br>285 | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protein<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165574 | ATU027<br>514 | ATL8C3<br>8192:2<br>42..11<br>54 | nap |  |  |  |  | ATL8C3<br>8192:2<br>42..91<br>3  | 0.42 | g29822<br>43 | 77 | 113  | 1.5e-<br>13  | (AF051<br>204)<br>hypoth<br>etical  |

|        |               |                                   |     |  |  |  |  |  |  |              |    |      |             |   |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|-------------|---|--|
| 165575 | ATU027<br>515 | ATL8C1<br>1947:1<br>..1701        | nap |  |  |  |  |  |  | g17061<br>10 | 77 | 751  | 6.4e-<br>42 | NON-<br>GREEN<br>PLASTI<br>D<br>TRIOSE<br>PHOSPH<br>ATE<br>TRANSL<br>OCATOR<br>PRECUR<br>SOR<br>(CTPT)<br>[Brass<br>ica<br>olerac<br>eal] | protei<br>n<br>[Picea<br>marian<br>al] |
| 165576 | ATU027<br>516 | ATL8C2<br>1882:1<br>..1562        | nap |  |  |  |  |  |  | g45444<br>60 | 77 | 1098 | 1.4e-<br>98 | (AC006<br>592)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                               |  |
| 165577 | ATU027<br>517 | ATL8C3<br>7146:2<br>667..1<br>693 | nap |  |  |  |  |  |  | g31933<br>15 | 77 | 226  |             | (AF069<br>299)<br>contai<br>ns<br>simila<br>rity  |  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|--|
| 165578 | ATU027<br>518 | ATL8S1<br>3490:1<br>..403         | nap |  |  |  |  |  |  |  |  |  | g21209<br>37 | 77 | 258  | 3.4e-<br>24  | aut<br>protei<br>n -<br>Alcali<br>genes<br>eutrop<br>hus<br>[Alcal<br>igenes<br>eutrop<br>hus] | to<br>transc<br>riptio<br>nal<br>activa<br>tor Ra<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165579 | ATU027<br>519 | ATL8S7<br>118:57<br>2..130        | nap |  |  |  |  |  |  |  |  |  | g38057<br>59 | 77 | 582  | 5.2e-<br>57  | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |  |
| 165580 | ATU027<br>520 | ATL8C3<br>5045:2<br>430..3<br>630 | nap |  |  |  |  |  |  |  |  |  | g29807<br>82 | 77 | 1328 | 7.6e-<br>124 | (AL022<br>198)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |  |





|        |                         |                                 |     |  |  |  |  |  |  |              |    |     |             |  |
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| 524    | 2112:4<br>404..5<br>797 |                                 |     |  |  |  |  |  |  | 36           |    |     | 41          | 540)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165585 | ATU027<br>525           | ATL8S1<br>8713:5<br>65..1       | nap |  |  |  |  |  |  | g46618<br>5  | 77 | 265 | 1.6e-<br>27 | HYPOTH<br>ETICAL<br>29.6<br>KD<br>PROTEI<br>N IN<br>RIBT-<br>DADB<br>INTERG<br>ENIC<br>REGION<br>(ORFX7<br>)<br>[Bacil<br>lus<br>subtil<br>is] |
| 165586 | ATU027<br>526           | ATL8C1<br>779:20<br>41..32<br>1 | nap |  |  |  |  |  |  | g42621<br>75 | 77 | 493 | 7.5e-<br>45 | (AC005<br>508)<br>12894<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165587 | ATU027<br>527           | ATL8S1<br>956:60<br>9..47       | nap |  |  |  |  |  |  | g36177<br>42 | 77 | 251 | 3.3e-<br>19 | (AC005<br>687)<br>RAP2.6<br>[Arabi<br>dopsis<br>thalia<br>na]  |

|        |               |                                 |     |  |  |  |  |  |  |              |    |     |             |  |
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| 165588 | ATU027<br>528 | ATL8C8<br>440:78<br>2..234<br>3 | nap |  |  |  |  |  |  | g44688<br>04 | 77 | 770 | 1.5e-<br>74 | (AL035<br>601)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 165589 | ATU027<br>529 | ATL8C2<br>4385:6<br>57..11<br>2 | nap |  |  |  |  |  |  | g47339<br>99 | 77 | 315 | 3.2e-<br>24 | (AC007<br>187)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 165590 | ATU027<br>530 | ATL8C3<br>4229:6<br>31..1       | nap |  |  |  |  |  |  | g42635<br>41 | 77 | 845 | 3.1e-<br>68 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165591 | ATU027<br>531 | ATL8C2<br>1923:1<br>05..57<br>0 | nap |  |  |  |  |  |  | g19441<br>46 | 77 | 169 | 3.2e-<br>19 | (AB002<br>589)<br>water-<br>solubu<br>le<br>chloro   |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
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| 165592 | ATU027<br>532 | ATL8S2<br>7486:1<br>20..47<br>6 | nap |  |  |  |  |  |  |  |  |  | g40565<br>07 | 77 | 175 | 3.3e-<br>12 | (AC005<br>896)<br>putati<br>ve RNA<br>bindin<br>g protei<br>n [Arabi<br>dopsis<br>thalia<br>nal] | phyll-<br>protei<br>n [Lepid<br>ium<br>virgin<br>icum]                        |
| 165593 | ATU027<br>533 | ATL8C2<br>167:11<br>62..49<br>8 | nap |  |  |  |  |  |  |  |  |  | g48862<br>86 | 77 | 549 | 1.5e-<br>46 | (AL050<br>300)<br>putati<br>ve protei<br>n [Arabi<br>dopsis<br>thalia<br>nal]                    | (AL050<br>300)<br>putati<br>ve protei<br>n [Arabi<br>dopsis<br>thalia<br>nal] |
| 165594 | ATU027<br>534 | ATL8C3<br>3702:1<br>..240       | nap |  |  |  |  |  |  |  |  |  | g30435<br>36 | 77 | 194 | 1.1e-<br>15 | (AB000<br>708)<br>SAUR<br>[Rapha<br>nus<br>sativu<br>s]  | (AB000<br>708)<br>SAUR<br>[Rapha<br>nus<br>sativu<br>s]                       |
| 165595 | ATU027<br>535 | ATL8C2<br>1303:1<br>..960       | nap |  |  |  |  |  |  |  |  |  | g33778<br>09 | 77 | 145 | 7.5e-<br>16 | (AF075<br>597)<br>contai<br>ns   | (AF075<br>597)<br>contai<br>ns  |



|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |   |   |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|---|
| 165598 | ATU027<br>538 | 18..1                      | nap |  |  |  | 09..46                           | 0.95 | g44328<br>02 | 76 | 2954 | 1.1e-<br>278 | (AC006<br>437)<br>putati<br>ve pol<br>ypr<br>otein,<br>5,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]       | slrR<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
|        |               | ATL8C8<br>673:1.<br>.2825  |     |  |  |  | ATL8C8<br>673:10<br>8..112<br>2  |      |              |    |      |              |   |   |
| 165599 | ATU027<br>539 | ATL8C3<br>6286:3<br>119..1 | nap |  |  |  | ATL8C3<br>6286:3<br>104..2<br>82 | 0.94 | g29613<br>74 | 76 | 1901 | 1.3e-<br>170 | (AL022<br>141)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |   |   |
| 165600 | ATU027<br>540 | ATL8C4<br>9942:1<br>763..1 | nap |  |  |  | ATL8C4<br>9942:1<br>281..4<br>2  | 0.93 | g45809<br>90 | 76 | 673  | 3.0e-<br>64  | (AF120<br>335)<br>putati<br>ve<br>transp<br>osase   |   |

|        |               |                                     |     |  |  |  |  |   |               |              |    |      |              |  |
|--------|---------------|-------------------------------------|-----|--|--|--|--|---|---------------|--------------|----|------|--------------|--|
| 165601 | ATU027<br>541 | ATL8C3<br>3394:1<br>..878           | nap |  |  |  |  | ATL8C3<br>3394:7<br>4..878  | 0.92          | g22450<br>79 | 76 | 558  | 4.0e-<br>62  | (Z9734<br>3)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 165602 | ATU027<br>542 | ATL8C2<br>2303:1<br>4020..<br>11798 | nap |  |  |  |  | ATL8C2<br>2303:1<br>2499..<br>11798,<br>ATL8C2<br>2303:1<br>3909..<br>12866 | 0.91,<br>0.92 | g48504<br>12 | 76 | 2782 | 1.3e-<br>289 | (AC007<br>288)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165603 | ATU027<br>543 | ATL8S9<br>22:752<br>..1             | nap |  |  |  |  | ATL8S9<br>22:551<br>..17  | 0.91          | g39257<br>03 | 76 | 588  | 1.0e-<br>59  | (X9590<br>5) 14-<br>3-3<br>protei<br>n<br>[Lycop<br>ersico<br>n<br>escule<br>ntum]                     |
| 165604 | ATU027<br>544 | ATL8C9<br>777:33<br>82..60<br>1     | nap |  |  |  |  | ATL8C9<br>777:28<br>34..60<br>1   | 0.90          | g85739<br>7  | 76 | 746  | 5.7e-<br>48  | (D5087<br>0)<br>mitoti<br>c  |

|        |               |                                   |     |  |  |  |  |                                   |      |  |  |                               |        |              |                              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--|--|-------------------------------|--------|--------------|------------------------------|---|
| 165605 | ATU027<br>545 | ATL8C2<br>2858:6<br>645..2<br>770 | nap |  |  |  |  | ATL8C2<br>2858:6<br>447..4<br>256 | 0.89 |  |  | g44328<br>07,<br>g44328<br>00 | 76, 53 | 2955,<br>164 | 1.1e-<br>303,<br>3.6e-<br>12 | cyclin<br>a2-<br>type<br>[Glyci<br>ne<br>max]<br>(AC006<br>570)<br>putati<br>ve<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>437)<br>putati<br>ve<br>univer<br>sal<br>minici<br>rcle<br>sequen<br>ce<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165606 | ATU027<br>546 | ATL8C2<br>2166:2<br>52..86<br>1   | nap |  |  |  |  | ATL8C2<br>2166:2<br>52..60<br>4   | 0.88 |  |  | g31829<br>22                  | 76     | 126          | 1.5e-<br>08                  | ADP-<br>RIBOSY<br>LATION<br>FACTOR<br>1<br>[Brass   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 165607 | ATU027<br>547 | ATL8C3<br>2842:3<br>233..7<br>5   | nap |  |  |  |  | ATL8C3<br>2842:3<br>233..7<br>5   | 0.88 | g21911<br>95 | 76 | 1955 | 7.7e-<br>201 | ica<br>rapa]<br>(AF007<br>271)<br>contai<br>ns<br>simila<br>rity<br>to T.<br>cruzi<br>3' end<br>fragme<br>nt<br>(PID:g<br>161956<br>)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165608 | ATU027<br>548 | ATL8S1<br>4622:3<br>85..1         | nap |  |  |  |  | ATL8S1<br>4622:1<br>74..7         | 0.85 | g54422<br>6  | 76 | 173  | 1.2e-<br>13  | EBSC<br>PROTEI<br>N<br>[Enter<br>ococcu<br>s<br>faecal<br>is]   |
| 165609 | ATU027<br>549 | ATL8C1<br>3652:2<br>000..1<br>521 | nap |  |  |  |  | ATL8C1<br>3652:1<br>953..1<br>521 | 0.82 | g45235<br>7  | 76 | 637  | 7.1e-<br>63  | (Z2959<br>1)<br>guanin<br>e<br>nucleo<br>tide<br>regula<br>tory<br>protei<br>n<br>[Vicia<br>fabal]  |



|        |               |                            |     |  |  |  |                                 |      |                              |        |             |                             |  |
|--------|---------------|----------------------------|-----|--|--|--|---------------------------------|------|------------------------------|--------|-------------|-----------------------------|--|
| 165610 | ATU027<br>550 | ATL8C1<br>4879:1<br>..2297 | nap |  |  |  | ATL8C1<br>4879:5<br>5..214<br>4 | 0.81 | 944173<br>09                 | 76     | 2778        | 1.3e-<br>282                | (AC006<br>446)<br>putati<br>ve pol<br>ypr<br>ote in<br>with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165611 | ATU027<br>551 | ATL8S4<br>106:73<br>0..1   | nap |  |  |  | ATL8S4<br>106:50<br>6..45       | 0.80 | g14083<br>9,<br>g26458<br>61 | 76, 65 | 145,<br>392 | 6.6e-<br>10,<br>1.0e-<br>27 | INSERT<br>ION<br>ELEMEN<br>T<br>IS407<br>HYPOTH<br>ETICAL<br>10.0<br>KD<br>PROTEI<br>N<br>(ORF4)<br>[Inser<br>tion<br>sequen<br>ce<br>IS407]<br>;<br>(AF034<br>211)<br>transp<br>osase<br>OrfB |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--|
| 165612 | ATU027<br>552 | ATL8C2<br>7318:4<br>219..4<br>19 | nap |  |  |  | ATL8C2<br>7318:3<br>865..4<br>19 | 0.80 | g24659<br>23 | 76 | 1226 | [Desul<br>fovir<br>io<br>vulgar<br>is<br>vulgar<br>is]                       |
| 165613 | ATU027<br>553 | ATL8C2<br>3203:4<br>86..17<br>17 | nap |  |  |  | ATL8C2<br>3203:4<br>86..17<br>17 | 0.79 | g49143<br>30 | 76 | 886  | (AC005<br>489)<br>F14N23<br>.16<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 165614 | ATU027<br>554 | ATL8C1<br>2203:1<br>415..1       | nap |  |  |  | ATL8C1<br>2203:1<br>415..1<br>99 | 0.76 | g26897<br>20 | 76 | 822  | (AF037<br>168)<br>DnaJ<br>homolo<br>gue<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165615 | ATU027<br>555 | ATL8C3<br>302:22<br>86..1        | nap |  |  |  | ATL8C3<br>302:22<br>01..23       | 0.76 | g45860<br>66 | 76 | 1783 | (AC006<br>194)<br>putati   |

|        |               |                                  |     |  |  |  |  |  |  |   |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|---|----------------------------------|------|--------------|----|------|--------------|---|
| 165616 | ATU027<br>556 | ATL8C2<br>3688:1<br>..1798       | nap |  |  |  |  |  |  | 9 | ATL8C2<br>3688:1<br>02..16<br>68 | 0.76 | g32928<br>25 | 76 | 1832 | 3.1e-<br>165 | ve pol<br>polypr<br>oteins,<br>3,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 165617 | ATU027<br>557 | ATL8S6<br>49:122<br>..602        | nap |  |  |  |  |  |  |   | ATL8S6<br>49:122<br>..549        | 0.74 | g38595<br>91 | 76 | 586  | 6.6e-<br>56  | (AL031<br>018)<br>hypoeth<br>etical<br>proteins<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 165618 | ATU027<br>558 | ATL8C4<br>6204:2<br>08..10<br>51 | nap |  |  |  |  |  |  |   | ATL8C4<br>6204:2<br>30..10<br>29 | 0.72 | g21601<br>59 | 76 | 504  | 2.8e-<br>53  | (AF104<br>919)<br>No<br>definition<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]    |
|        |               |                                  |     |  |  |  |  |  |  |   |                                  |      |              |    |      |              | (AC000<br>132)<br>F21M12<br>.4<br>gene<br>product<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165619 | ATU027<br>559 | ATL8C4<br>874:18<br>71..63<br>4  | nap |  |  |  |  |  | ATL8C4<br>874:17<br>42..74<br>9  | 0.72 | g47739<br>18 | 76 | 1611 | 1.2e-<br>145 | thalia<br>na]<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165620 | ATU027<br>560 | ATL8C3<br>9869:1<br>123..5<br>04 | nap |  |  |  |  |  | ATL8C3<br>9869:8<br>57..50<br>4  | 0.70 | g24594<br>33 | 76 | 581  | 5.6e-<br>40  | (AC002<br>332)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]                           |
| 165621 | ATU027<br>561 | ATL8C1<br>189:41<br>2..178<br>3  | nap |  |  |  |  |  | ATL8C1<br>189:41<br>2..167<br>8  | 0.69 | g49144<br>63 | 76 | 645  | 2.2e-<br>56  | (AL050<br>400)<br>putati<br>ve<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]                               |
| 165622 | ATU027<br>562 | ATL8C1<br>4416:1<br>413..2<br>15 | nap |  |  |  |  |  | ATL8C1<br>4416:1<br>054..3<br>59 | 0.69 | g38343<br>19 | 76 | 723  | 2.5e-<br>71  | (AC005<br>679)<br>Simila<br>r to<br>[Arabi<br>dopsis<br>thalia  |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|-------------|--|
| 165623 | ATU027<br>563 | ATL8C3<br>4936:3<br>258..5<br>288 | nap |  |  |  | ATL8C3<br>4936:3<br>258..5<br>189 | 0.68 | g13089<br>7  | 76 | 391  | 1.6e-<br>22 | na]<br>DNA<br>PRIMAS<br>E<br>SMALL<br>SUBUNI<br>T (DNA<br>PRIMAS<br>E 49<br>KD<br>SUBUNI<br>T)<br>(P49)<br>[Mus<br>muscul<br>us] |
| 165624 | ATU027<br>564 | ATL8C4<br>3977:1<br>..1551        | nap |  |  |  | ATL8C4<br>3977:1<br>41..15<br>51  | 0.67 | g32362<br>53 | 76 | 1033 |             | (AC004<br>684)<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 165625 | ATU027<br>565 | ATL8C3<br>2808:1<br>..1070        | nap |  |  |  | ATL8C3<br>2808:7<br>39..10<br>70  | 0.66 | g45672<br>95 | 76 | 1155 | 2.3e-<br>99 | (AC006<br>918)<br>putati<br>ve pol<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 165626 | ATU027<br>566 | ATL8S4<br>637:30                  | nap |  |  |  | ATL8S4<br>637:26                  | 0.66 | g30972<br>60 | 76 | 87   | 1.4e-<br>07 | (AJ005<br>741)   |

|        |               |                           |     |  |  |  |                                  |      |              |    |      |         |   |
|--------|---------------|---------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|---------|---|
| 165627 | ATU027<br>567 | 5..1                      | nap |  |  |  | 3..9                             | 0.66 | g45859<br>64 | 76 | 120  | 4.7e-09 | (AC005 287)<br>hypothetical protein [Arabi dopsis thaliana] |
| 165628 | ATU027<br>568 | ATL8C3<br>4565:9<br>51..1 | nap |  |  |  | ATL8C4<br>4691:1<br>412..1<br>13 | 0.64 | g48862<br>86 | 76 | 407  | 1.1e-34 | (AL050 300)<br>putative protein [Arabi dopsis thaliana]     |
| 165629 | ATU027<br>569 | ATL8C1<br>8223:5<br>29..1 | nap |  |  |  | ATL8C1<br>8223:4<br>10..15<br>1  | 0.62 | g40380<br>66 | 76 | 460  | 3.0e-20 | (AC005 897)<br>hypothetical protein [Arabi dopsis thaliana] |
| 165630 | ATU027<br>570 | ATL8C1<br>9276:3          | nap |  |  |  | ATL8C1<br>9276:3                 | 0.62 | g38941<br>57 | 76 | 1013 | 2.6e-99 | (AC005 312)   |

|        |               |                            |     |  |  |  |                            |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------|------|--------------|----|------|--------------|--|
| 165631 | ATU027<br>571 | 18..37<br>48               | nap |  |  |  | 18..35<br>17               | 0.60 | g36953<br>82 | 76 | 1046 | 1.le-<br>105 | putative<br>protein<br>kinase<br>, 3'<br>partial<br>[Arabidopsis<br>thaliana]  |
|        |               |                            |     |  |  |  |                            |      |              |    |      |              | (AF096<br>370)<br>contains<br>similarity<br>to<br>Arabidopsis<br>thaliana<br>retrotransposon<br>Tall-1<br>(GB:L47193)<br>[Arabidopsis<br>thaliana] |
| 165632 | ATU027<br>572 | ATL8S1<br>0406:3<br>5..704 | nap |  |  |  | ATL8S1<br>0406:4<br>4..538 | 0.60 | g48865<br>53 | 76 | 629  | 4.le-<br>60  | (Y1852<br>7)<br>pobR<br>regulator<br>[Pseudomonas]   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|--|
| 165633 | ATU027<br>573 | ATL8C2<br>4123:2<br>434..1       | nap |  |  |  | ATL8C2<br>4123:2<br>333..4<br>9  | 0.59 | g45899<br>61 | 76 | 518  | 8.1e-<br>53 | sp.]<br>(AC007<br>169)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 165634 | ATU027<br>574 | ATL8C2<br>6691:9<br>77..1        | nap |  |  |  | ATL8C2<br>6691:8<br>13..38<br>8  | 0.58 | g32818<br>62 | 76 | 319  | 1.6e-<br>38 | (AL031<br>004)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 165635 | ATU027<br>575 | ATL8C1<br>7993:4<br>50..39<br>44 | nap |  |  |  | ATL8C1<br>7993:4<br>50..37<br>85 | 0.57 | g45860<br>66 | 76 | 2604 |             | (AC006<br>194)<br>putati<br>ve pol<br>ypr<br>otein,<br>3',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165636 | ATU027<br>576 | ATL8C1<br>464:12<br>10..1        | nap |  |  |  | ATL8C1<br>464:10<br>96..82       | 0.55 | g17698<br>97 | 76 | 478  | 8.0e-<br>39 | (Y0801<br>0)<br>lectin<br>recept<br>or<br>kinase   |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165637 | ATU027<br>577 | ATL8C7<br>29:639<br>..1          | nap |  |  |  | ATL8C7<br>29:639<br>..28         | 0.54 | g40975<br>61 | 76 | 406  | 6.6e-<br>46  | [Arabi<br>dopsis<br>thalia<br>na]<br>(U6491<br>8)<br>ATGP1<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165638 | ATU027<br>578 | ATL8C4<br>1062:1<br>45..24<br>17 | nap |  |  |  | ATL8C4<br>1062:1<br>45..24<br>00 | 0.54 | g42630<br>63 | 76 | 1543 | 3.3e-<br>140 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165639 | ATU027<br>579 | ATL8C4<br>6252:4<br>08..1        | nap |  |  |  | ATL8C4<br>6252:3<br>31..76       | 0.53 | g45804<br>74 | 76 | 587  | 1.3e-<br>51  | (AC006<br>081)<br>putati<br>ve<br>pathog<br>enesis<br>-<br>relate<br>d<br>protei<br>n;<br>simila<br>r to<br>PR-1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165640 | ATU027        | ATL8C1                           | nap |  |  |  | ATL8C1                           | 0.52 | g23175       | 76 | 471  | 8.3e-        | CAFFEI  |

|        |                        |                                  |     |  |                                  |  |              |             |  |
|--------|------------------------|----------------------------------|-----|--|----------------------------------|--|--------------|-------------|--|
| 580    | 8811:1<br>61..11<br>74 |                                  |     |  | 8811:2<br>30..11<br>25           |  | 7            | 37          | C ACID<br>3-O-<br>METHYL<br>TRANSF<br>ERASE<br>(S-<br>ADENOS<br>YSL-L-<br>METHIO<br>NINE:C<br>AFFEIC<br>ACID<br>3-O-<br>METHYL<br>TRANSF<br>ERASE)<br>(COMT)<br>[Popul<br>us<br>tremul<br>oides] |
| 165641 | ATU027<br>581          | ATL8C3<br>7774:3<br>31..13<br>85 | nap |  | ATL8C3<br>7774:3<br>31..79<br>8  |  | g45859<br>93 | 9.2e-<br>40 | AC005<br>(287)<br>Simila<br>r to<br>serine<br>/threo<br>nine<br>kinase<br>s<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 165642 | ATU027<br>582          | ATL8C4<br>1955:2<br>96..13<br>89 | nap |  | ATL8C4<br>1955:4<br>44..12<br>41 |  | g31525<br>75 | 6.0e-<br>73 | (AC002<br>986)<br>Simila<br>r to<br>cytoch<br>rome   |

|        |               |                                  |     |  |  |  |  |  |      |              |    |     |             |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|------|--------------|----|-----|-------------|--|--|
| 165643 | ATU027<br>583 | ATL8C2<br>3956:2<br>824..4<br>78 | nap |  |  |  |  |  | 0.48 | g45585<br>58 | 76 | 939 | 3.5e-<br>97 | (AC007<br>138)<br>putati<br>ve<br>polyga<br>lactur<br>onidas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] | P450ty<br>r<br>gb U32<br>624<br>from<br>Sorghu<br>m<br>bicolo<br>r.<br>Gene<br>is cut<br>off at<br>exon<br>3.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165644 | ATU027<br>584 | ATL8S9<br>459:1.<br>.707         | nap |  |  |  |  |  | 0.47 | g54870<br>2  | 76 | 213 | 2.0e-<br>19 | DNA-<br>DIRECT<br>ED RNA<br>POLYME<br>RASE<br>II<br>14.5<br>KD<br>POLYPE<br>PTIDE                      |  |

|        |               |                            |     |  |  |  |  |                                 |      |  |                               |        |             |                             |  |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|--|-------------------------------|--------|-------------|-----------------------------|--|
| 165645 | ATU027<br>585 | ATL8C1<br>6724:2<br>228..1 | nap |  |  |  |  | ATL8C1<br>6724:2<br>056..3<br>9 | 0.46 |  | g10766<br>85,<br>g22621<br>67 | 76, 65 | 461,<br>754 | 9.4e-<br>41,<br>9.0e-<br>65 | (RPB9)<br>(RPB14<br>.5)<br>[Homo<br>sapien<br>s]   |
| 165646 | ATU027<br>586 | ATL8S1<br>0949:1<br>..471  | nap |  |  |  |  | ATL8S1<br>0949:7<br>4..378      | 0.44 |  | g15506<br>57                  | 76     | 481         | 7.4e-<br>26                 | (Z8022<br>6)<br>hypoth<br>etical<br>protei<br>n<br>Rv0779<br>c<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis |

|        |               |                                  |     |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 165647 | ATU027<br>587 | ATL8C4<br>6542:1<br>574..1       | nap |  |  |  | ATL8C4<br>6542:1<br>238..1<br>02 | 0.42 | g21911<br>60 | 76 | 854 | 2.7e-<br>89 | AF007<br>270)<br>Simila<br>r to<br>pectin<br>estera<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 165648 | ATU027<br>588 | ATL8S1<br>474:46<br>5..214       | nap |  |  |  |                                  |      | g26725<br>2  | 76 | 205 | 1.9e-<br>16 | EXCINU<br>CLEASE<br>ABC<br>SUBUNI<br>T A<br>[Parac<br>occus<br>denitr<br>ifican<br>s]                      |
| 165649 | ATU027<br>589 | ATL8C3<br>9974:1<br>021..2<br>95 | nap |  |  |  |                                  |      | g46782<br>07 | 76 | 868 | 2.5e-<br>81 | AC007<br>134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165650 | ATU027<br>590 | ATL8C4<br>7460:1<br>073..1<br>69 | nap |  |  |  |                                  |      | g45672<br>53 | 76 | 897 | 1.2e-<br>90 | AC007<br>070)<br>putati<br>ve<br>serpin  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|---|
| 165651 | ATU027<br>591 | ATL8C2<br>8938:1<br>..533         | nap |  |  |  |  |  |  |  |  |  | g31933<br>15 | 76 | 346 | 3.5e-<br>24 | (AF069<br>299)<br>contai<br>ns<br>simila<br>rity<br>to<br>transc<br>riptio<br>nal<br>activa<br>tor Ra<br>[Arabi<br>dopsis<br>thalia<br>na] | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165652 | ATU027<br>592 | ATL8C7<br>013:1.<br>.1090         | nap |  |  |  |  |  |  |  |  |  | g43357<br>50 | 76 | 319 | 5.7e-<br>30 | (AC006<br>284)<br>putati<br>ve<br>beta-<br>1,3-<br>endogl<br>ucanas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                              | putati<br>ve<br>beta-<br>1,3-<br>endogl<br>ucanas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165653 | ATU027<br>593 | ATL8C1<br>2209:5<br>838..1<br>988 | nap |  |  |  |  |  |  |  |  |  | g45393<br>94 | 76 | 859 | 2.9e-<br>94 | (AL035<br>526)<br>putati<br>ve<br>protei   | putati<br>ve<br>protei  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 165654 | ATU027<br>594 | ATL8C2<br>743:1.<br>.1184         | nap |  |  |  |  |  |  |  |  | g45672<br>96 | 76 | 1133 | 8.3e-<br>102 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>918)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165655 | ATU027<br>595 | ATL8C4<br>8427:4<br>173..5<br>831 | nap |  |  |  |  |  |  |  |  | g54897<br>6  | 76 | 77   | 0.996        | SUPPRE<br>SSOR<br>PROTEI<br>N<br>SRP40<br>[Saech<br>aromyc<br>es<br>cerevi<br>siae]  |
| 165656 | ATU027<br>596 | ATL8C2<br>9236:2<br>590..6<br>11  | nap |  |  |  |  |  |  |  |  | g44067<br>92 | 76 | 1238 | 3.1e-<br>95  | (AC006<br>304)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis   |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|---|
| 165657 | ATU027<br>597 | ATL8C4<br>5258:1<br>048..1<br>856 | nap |  |  |  |  |  |  |  |  |  |  | g44552<br>97 | 76 | 547  | 5.7e-<br>63  | thalia<br>na]<br>(AL035<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165658 | ATU027<br>598 | ATL8C9<br>130:12<br>4..161<br>7   | nap |  |  |  |  |  |  |  |  |  |  | g42637<br>73 | 76 | 1439 |              | (AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 165659 | ATU027<br>599 | ATL8C2<br>4883:1<br>..1912        | nap |  |  |  |  |  |  |  |  |  |  | g47739<br>20 | 76 | 2390 | 9.9e-<br>245 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 165660 | ATU027<br>600 | ATL8C4<br>4779:8<br>55..16<br>3   | nap |  |  |  |  |  |  |  |  |  |  | g32506<br>79 | 76 | 884  | 3.0e-<br>71  | (AL024<br>486)<br>putati<br>ve<br>protei<br>n<br>[Arabi   |









|        |               |                                  |     |  |  |  |  |                                  |              |    |     |             |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|--------------|----|-----|-------------|--|--|
|        | 612           | 330:53<br>7..1                   |     |  |  |  |  |                                  | 41           |    |     |             | 62   | 250)<br>putati<br>ve<br>Athila<br>retroee<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165673 | ATU027<br>613 | ATL8C1<br>1381:1<br>075..1       | nap |  |  |  |  |                                  | g34137<br>10 | 76 | 450 | 4.8e-<br>45 | (AC004<br>747)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]        |  |
| 165674 | ATU027<br>614 | ATL8C1<br>7397:3<br>92..69<br>9  | nap |  |  |  |  |                                  | g18711<br>79 | 76 | 160 | 1.4e-<br>11 | (U9043<br>9)<br>FMRFam<br>ide<br>precur<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>nal] |  |
| 165675 | ATU027<br>615 | ATL8C4<br>3849:1<br>170..3<br>99 | nap |  |  |  |  | ATL8C4<br>3849:1<br>088..3<br>99 | g28425<br>01 | 75 | 124 |             | (Al021<br>748)<br>putati<br>ve<br>quinin<br>e  |  |

|        |               |                           |     |  |  |  |  |  |  |      |              |    |     |             |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|------|--------------|----|-----|-------------|---|
| 165676 | ATU027<br>616 | ATL8S1<br>7147:1<br>..503 | nap |  |  |  |  |  |  | 0.99 | g17100<br>73 | 75 | 236 | 4.2e-<br>23 | oxidoreductase [Schizosaccharomyces pombe] DNA REPAIR PROTEIN RECOGNITION HOMOLOG [Coxiella burnetii] |
| 165677 | ATU027<br>617 | ATL8C4<br>0895:6<br>23..1 | nap |  |  |  |  |  |  | 0.99 | g12201<br>80 | 75 | 152 | 8.8e-<br>12 | (Z69996) dormancy related protein [Trollius ledebourii]   |
| 165678 | ATU027<br>618 | ATL8S1<br>1709:1<br>..599 | nap |  |  |  |  |  |  | 0.98 | g17100<br>26 | 75 | 311 | 7.1e-<br>30 | RAS-RELATED PROTEIN RAB-4B [Rattus norvegicus]  |

|        |               |                            |     |  |  |  |                                 |      |              |    |      |             |  |
|--------|---------------|----------------------------|-----|--|--|--|---------------------------------|------|--------------|----|------|-------------|--|
| 165679 | ATU027<br>619 | ATL8C2<br>9021:1<br>..709  | nap |  |  |  | ATL8C2<br>9021:7<br>2..662      | 0.97 | g58556<br>5  | 75 | 265  | 2.2e-<br>32 | RIBOSO<br>ME<br>RECYCL<br>ING<br>FACTOR<br>HOMOLO<br>G<br>(NUCLE<br>AR<br>LOCATE<br>D<br>PROTEI<br>N D2)<br>[Daucu<br>s<br>carota<br>] |
| 165680 | ATU027<br>620 | ATL8S2<br>1101:5<br>57..1  | nap |  |  |  | ATL8S2<br>1101:4<br>65..91      | 0.96 | g12375<br>6  | 75 | 773  | 1.8e-<br>74 | HISTID<br>INE<br>UTILIZ<br>ATION<br>REPRES<br>SOR<br>[Pseud<br>omonas<br>putida<br>]   |
| 165681 | ATU027<br>621 | ATL8C1<br>2982:1<br>..3346 | nap |  |  |  | ATL8C1<br>2982:8<br>1..306<br>3 | 0.94 | g48504<br>04 | 75 | 4055 | 0.0         | (AC007<br>357)<br>Simila<br>r to<br>gb AF0<br>38007<br>FIC1<br>gene<br>from<br>Homo<br>sapien<br>s and<br>is a                         |

|        |               |                            |     |  |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165682 | ATU027<br>622 | ATL8C1<br>2851:1<br>859..1 | nap |  |  |  |  |  |  | ATL8C1<br>2851:1<br>786..1<br>56 | 0.94 | g32928<br>21 | 75 | 1502 | 1.7e-<br>121 | member<br>of the<br>PF001<br>22 E1-<br>E2<br>ATPase<br>family<br>ESTs<br>gb T45<br>045<br>and<br>gb AA3<br>94473<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165683 | ATU027<br>623 | ATL8C1<br>22:218<br>0..1   | nap |  |  |  |  |  |  | ATL8C1<br>22:177<br>5..196       | 0.92 | g33778<br>34 | 75 | 1249 |              | (AF075<br>598)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi  |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 165684 | ATU027<br>624 | ATL8C1<br>9856:1<br>770..3<br>145 | nap |  |  |  |  |  | ATL8C1<br>9856:1<br>770..3<br>024 | 0.89 | g18257<br>66 | 75 | 209 | 1.5e-<br>15 | dopsis<br>thalia<br>nal<br>(U8831<br>4)<br>simila<br>r to<br>flavin<br>-<br>contai<br>ning<br>monoox<br>ygenas<br>es<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] |
| 165685 | ATU027<br>625 | ATL8C2<br>723:18<br>71..39<br>12  | nap |  |  |  |  |  | ATL8C2<br>723:24<br>30..38<br>50  | 0.89 | g44173<br>07 | 75 | 862 | 1.3e-<br>89 | (AC006<br>446)<br>putati<br>ve pol<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 165686 | ATU027<br>626 | ATL8S2<br>6022:1<br>31..47<br>7   | nap |  |  |  |  |  | ATL8S2<br>6022:1<br>37..44<br>0   | 0.89 | g10767<br>86 | 75 | 362 | 2.2e-<br>07 | hypoth<br>etical<br>protei<br>n 1 -<br>perenn<br>ial<br>teosin<br>te<br>[Zea<br>diplop<br>erenni  |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165687 | ATU027<br>627 | ATL8C1<br>2399:1<br>..2164       | nap |  |  |  | ATL8C1<br>2399:9<br>8..216<br>4  | 0.88 | g45858<br>79 | 75 | 1824 | 6.0e-<br>151 | s]<br>(AC005<br>850)<br>Highly<br>Similil<br>ar to<br>Mlo<br>protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165688 | ATU027<br>628 | ATL8C2<br>830:1.<br>.1432        | nap |  |  |  | ATL8C2<br>830:52<br>..1366       | 0.86 | g22135<br>81 | 75 | 909  | 3.7e-<br>101 | (AC000<br>348)<br>T7N9.1<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165689 | ATU027<br>629 | ATL8C7<br>820:11<br>36..24<br>42 | nap |  |  |  | ATL8C7<br>820:11<br>36..23<br>14 | 0.83 | g45126<br>52 | 75 | 1154 | 1.7e-<br>56  | (AC007<br>048)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 165690 | ATU027<br>630 | ATL8C3<br>338:1.<br>.909         | nap |  |  |  | ATL8C3<br>338:57<br>..909        | 0.83 | g34510<br>70 | 75 | 120  | 3.3e-<br>10  | (AL031.<br>326)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |

|        |               |                            |     |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 165691 | ATU027<br>631 | ATL8S1<br>9014:6<br>3..670 | nap |  |  | ATL8S1<br>9014:3<br>01..35<br>3 | 0.82 | g17238<br>82 | 75 | 244 | 1.8e-<br>22 | HYPOTH<br>ETICAL<br>29.9<br>KD<br>PROTEI<br>N IN<br>TOLC-<br>RIBB<br>INTERG<br>ENIC<br>REGION<br>(ORFC)<br>(F271)<br>[Esche<br>richia<br>coli] |
| 165692 | ATU027<br>632 | ATL8S6<br>369:1.<br>.375   | nap |  |  | ATL8S6<br>369:11<br>8..375      | 0.78 | g11734<br>60 | 75 | 225 |             | SMALL<br>PROTEI<br>N B<br>HOMOLO<br>G<br>[Strep<br>tococc<br>us<br>faecal<br>is]   |
| 165693 | ATU027<br>633 | ATL8S8<br>156:1.<br>.434   | nap |  |  | ATL8S8<br>156:11<br>1..417      | 0.78 | g38508<br>38 | 75 | 171 | 5.4e-<br>16 | (AJ012<br>480)<br>hypoth<br>etical<br>protei<br>n<br>[Pseud<br>omonas<br>mendoc<br>ina]  |
| 165694 | ATU027<br>634 | ATL8C4<br>0002:4<br>03..7  | nap |  |  | ATL8C4<br>0002:4<br>03..12<br>5 | 0.77 | g25831<br>16 | 75 | 182 | 5.1e-<br>13 | (AC002<br>387)<br>unknown  |

|        |               |                                  |     |  |  |  |  |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 165695 | ATU027<br>635 | ATL8C8<br>584:29<br>13..17<br>56 | nap |  |  |  |  | ATL8C8<br>584:28<br>22..17<br>56 | 0.74 | g45444<br>20,<br>g33778<br>45 | 75, 72 | 833,<br>309 | 1.1e-<br>78,<br>1.5e-<br>30 | protein<br>[Arabi<br>dopsis,<br>thalia<br>na]  |
|        |               |                                  |     |  |  |  |  |                                  |      |                               |        |             |                             | (AC006<br>955)<br>hypothe<br>tical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF076<br>274)<br>contains<br>similarity<br>to the<br>basic<br>region<br>plus<br>leucine<br>zipper<br>transcription<br>factor<br>s<br>(Pfam:<br>bZIP.h<br>mm,<br>score:<br>12.77)<br>[Arabi<br>dopsis |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 165696 | ATU027<br>636 | ATL8C1<br>6838:4<br>24..23<br>33  | nap |  |  |  | ATL8C1<br>6838:4<br>25..21<br>98  | 0.74 | g14953<br>66 | 75 | 1060 | 3.6e-<br>105 | (Z6937<br>0)<br>nitrite<br>transporter<br>[Cucumis<br>sativus]                         |
| 165697 | ATU027<br>637 | ATL8C3<br>1440:1<br>182..1        | nap |  |  |  | ATL8C3<br>1440:1<br>107..7<br>6   | 0.73 | g28646<br>26 | 75 | 1136 | 1.5e-<br>110 | (AL021<br>811)<br>cytochrome<br>p450 -<br>like<br>protein<br>[Arabidopsis<br>thaliana] |
| 165698 | ATU027<br>638 | ATL8C1<br>7652:4<br>821..3<br>865 | nap |  |  |  | ATL8C1<br>7652:4<br>821..3<br>878 | 0.71 | g45726<br>75 | 75 | 296  | 2.5e-<br>21  | (AC006<br>954)<br>unknown<br>protein<br>[Arabidopsis<br>thaliana]                      |
| 165699 | ATU027<br>639 | ATL8C2<br>7035:1<br>..1874        | nap |  |  |  | ATL8C2<br>7035:4<br>63..13<br>17  | 0.71 | g45444<br>50 | 75 | 727  | 5.6e-<br>77  | (AC006<br>592)<br>hypothetical<br>protein  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 165700 | ATU027<br>640 | ATL8C3<br>9003:4<br>11..11<br>10 | nap |  |  |  |  | ATL8C3<br>9003:7<br>88..10<br>75 | 0.70 | g30803<br>60 | 75 | 503 | 6.0e-<br>54 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165701 | ATU027<br>641 | ATL8C5<br>90:1..<br>1020         | nap |  |  |  |  | ATL8C5<br>90:179<br>..865        | 0.69 | g40564<br>18 | 75 | 364 | 1.7e-<br>38 | (AC005<br>322)<br>T7A14.<br>5<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165702 | ATU027<br>642 | ATL8C2<br>2238:1<br>45..16<br>86 | nap |  |  |  |  | ATL8C2<br>2238:1<br>45..12<br>82 | 0.68 | g42630<br>62 | 75 | 191 | 1.2e-<br>17 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 165703 | ATU027<br>643 | ATL8C3<br>9114:5<br>67..1        | nap |  |  |  |  | ATL8C3<br>9114:5<br>67..18<br>2  | 0.68 | g48182<br>8  | 75 | 238 | 3.9e-<br>18 | 5B<br>protei<br>n -<br>tomato<br>[Lycop<br>ersico<br>n]   |





|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165712 | ATU027<br>652 | ATL8C1<br>0708:4<br>38..17<br>03 | nap |  |  |  |  |  | ATL8C1<br>0708:4<br>38..16<br>84 | 0.61 | g31352<br>74 | 75 | 1767 | 1.5e-<br>174 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC003<br>058)<br>putati<br>ve<br>beta-<br>1,3-<br>endogl<br>ucanas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165713 | ATU027<br>653 | ATL8S6<br>097:53<br>3..1         | nap |  |  |  |  |  | ATL8S6<br>097:44<br>1..17        | 0.61 | g11631<br>23 | 75 | 276  | 4.1e-<br>19  | (U4353<br>7)<br>membra<br>ne<br>protei<br>n<br>involv<br>ed in<br>mithra<br>mycin<br>resist<br>ance<br>[Strep<br>tomyce<br>s<br>argill<br>aceus]        |
| 165714 | ATU027<br>654 | ATL8C3<br>8293:1<br>843..1       | nap |  |  |  |  |  | ATL8C3<br>8293:1<br>843..7<br>01 | 0.59 | g48368<br>79 | 75 | 1105 | 1.9e-<br>113 | (AC007<br>260)<br>lcl pr<br>t_seq<br>No   |



|        |               |                            |     |  |  |  |                                  |      |  |  |                               |        |             |                             |   |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--|--|-------------------------------|--------|-------------|-----------------------------|---|
| 165715 | ATU027<br>655 | ATL8C1<br>1696:1<br>441..8 | nap |  |  |  | ATL8C1<br>1696:1<br>258..8       | 0.59 |  |  | g37023<br>24                  | 75     | 305         | 4.9e-<br>36                 | (AC005<br>397)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 165716 | ATU027<br>656 | ATL8C3<br>2822:1<br>..1870 | nap |  |  |  | ATL8C3<br>2822:2<br>22..12<br>98 | 0.58 |  |  | g26513<br>10,<br>g41028<br>39 | 75, 65 | 546,<br>534 | 5.8e-<br>53,<br>7.3e-<br>51 | (AC002<br>336)<br>putati<br>ve<br>PTR2-B<br>peptid<br>e<br>transp<br>orter<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AF016<br>713)<br>LeOPT1<br>[Lycop<br>ersico<br>n<br>escule<br>ntum] |
| 165717 | ATU027        | ATL8C1                     | nap |  |  |  | ATL8C1                           | 0.56 |  |  | g42622                        | 75     | 778         | 5.0e-                       | (AC006  |

| 657    | 4726:1<br>173..2<br>871 | 4726:1<br>173..2<br>871          |     |  |  |  | 4726:1<br>173..2<br>871          | 10   |              |    |     | 77          | 161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
|--------|-------------------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 165718 | ATU027<br>658           | ATL8C4<br>8535:1<br>387..6<br>71 | nap |  |  |  | ATL8C4<br>8535:1<br>031..6<br>71 | 0.53 | g37023<br>18 | 75 | 463 | 4.1e-<br>31 | (AC005<br>397)<br>putati<br>ve Ap2<br>domain<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 165719 | ATU027<br>659           | ATL8C1<br>2516:8<br>75..1        | nap |  |  |  | ATL8C1<br>2516:8<br>64..10       | 0.51 | g39245<br>97 | 75 | 554 | 1.9e-<br>60 | (AF069<br>442)<br>putati<br>ve<br>oxidor<br>educta<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 165720 | ATU027<br>660           | ATL8C2<br>9503:2<br>531..1       | nap |  |  |  | ATL8C2<br>9503:2<br>029..6<br>85 | 0.51 | g30333<br>91 | 75 | 752 | 7.6e-<br>50 | (AC004<br>238)<br>putati<br>ve  |

|        |               |                                  |     |  |  |  |                                  |      |                               |        |             |                             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 165721 | ATU027<br>661 | ATL8S2<br>9414:9<br>..538        | nap |  |  |  | ATL8S2<br>9414:1<br>37..44<br>0  | 0.51 | g30245<br>23,<br>g11728<br>99 | 75, 71 | 234,<br>189 | 2.4e-<br>23,<br>2.7e-<br>17 | RECOMB<br>INATIO<br>N<br>PROTEI<br>N RECR<br>[Synec<br>hocyst<br>is<br>sp.];<br>RECOMB<br>INATIO<br>N<br>PROTEI<br>N RECR<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd] |
| 165722 | ATU027<br>662 | ATL8C4<br>6313:4<br>40..13<br>11 | nap |  |  |  | ATL8C4<br>6313:7<br>90..12<br>73 | 0.49 | g34260<br>40                  | 75     | 549         | 3.7e-<br>59                 | (AC005<br>168)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165723 | ATU027<br>663 | ATL8C8<br>205:1.<br>.5115        | nap |  |  |  | ATL8C8<br>205:76<br>..5115       | 0.48 | g39288<br>62                  | 75     | 1426        | 1.5e-<br>155                | (AF089<br>710)<br>diseas   |

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| 165724 | ATU027<br>664 | ATL8C8<br>742:14<br>70..1        | nap |  |  |  |  |  | ATL8C8<br>742:12<br>82..19<br>5  | 0.46 | g45444<br>29 | 75 | 2646 | 1.4e-<br>259 | (AC006<br>955)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | e<br>resist<br>ance<br>protei<br>n RPP8<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 165725 | ATU027<br>665 | ATL8C2<br>4639:8<br>51..17<br>15 | nap |  |  |  |  |  | ATL8C2<br>4639:9<br>35..17<br>08 | 0.44 | g45394<br>30 | 75 | 352  | 4.1e-<br>37  | (AL049<br>171)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    | (AL049<br>171)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165726 | ATU027<br>666 | ATL8C4<br>826:66<br>9..143       | nap |  |  |  |  |  | ATL8C4<br>826:66<br>7..166       | 0.42 | g42630<br>50 | 75 | 342  | 2.3e-<br>36  | (AC005<br>142)<br>putati<br>ve<br>noduli<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    | (AC005<br>142)<br>putati<br>ve<br>noduli<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 165727 | ATU027<br>667 | ATL8C4<br>2339:4<br>13..59<br>27  | nap |  |  |  | ATL8C4<br>2339:4<br>13..58<br>61  | 0.41 | g36953<br>97 | 75 | 1625 | 1.2e-<br>150 | na]<br>(AF096<br>372)<br>No.<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165728 | ATU027<br>668 | ATL8C4<br>2869:2<br>849..6<br>001 | nap |  |  |  | ATL8C4<br>2869:2<br>861..6<br>001 | 0.40 | g42638<br>30 | 75 | 2176 | 2.4e-<br>172 | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165729 | ATU027<br>669 | ATL8C6<br>864:12<br>8..874        | nap |  |  |  |                                   |      | g31223<br>57 | 75 | 1187 | 5.9e-<br>123 | PUTATI<br>VE<br>LIPOAT<br>E-<br>PROTEI<br>N<br>LIGASE<br>B<br>(LIPOA<br>TE<br>BIOSYN<br>THESIS<br>PROTEI<br>N B)<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 165730 | ATU027<br>670 | ATL8C4<br>9105:1<br>170..3<br>29 | nap |  |  |  |  |  | 947538<br>89 | 75 | 659 | 2.0e-<br>62 | (AJ005<br>761)<br>Tpv2-<br>1c<br>[Phase<br>olus<br>vulgar<br>is]   |
| 165731 | ATU027<br>671 | ATL8C1<br>8928:2<br>58..1        | nap |  |  |  |  |  | g38108<br>94 | 75 | 214 | 1.1e-<br>14 | (AB016<br>766)<br>transc<br>riptio<br>n<br>antite<br>rminat<br>ion<br>protei<br>n<br>[Vibri<br>o<br>alginol<br>yticu<br>s] |
| 165732 | ATU027<br>672 | ATL8C2<br>6522:3<br>292..5<br>98 | nap |  |  |  |  |  | g23927<br>64 | 75 | 487 | 9.6e-<br>38 | (AC002<br>534)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 165733 | ATU027<br>673 | ATL8S1<br>8342:5<br>06..22<br>7  | nap |  |  |  |  |  | g32942<br>46 | 75 | 92  | 0.0001<br>3 | (AL031<br>031)<br>putati<br>ve<br>transc<br>riptio<br>nal  |







|        |                 |                                   |     |  |  |  |  |  |                               |        |            |                       |   |  |
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| 679    | 545:1.<br>.2101 |                                   |     |  |  |  |  |  | 64                            |        |            |                       | 124   | 220)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165740 | ATU027<br>680   | ATL8C8<br>558:44<br>49..30<br>22  | nap |  |  |  |  |  | g42638<br>29,<br>g19463<br>55 | 75, 38 | 71,<br>312 | 0.042,<br>7.4e-<br>20 | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(U9321<br>5)<br>maize<br>transp<br>oson<br>MuDR<br>mudrA<br>protei<br>n<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 165741 | ATU027<br>681   | ATL8C1<br>1242:1<br>748..3<br>442 | nap |  |  |  |  |  | g26492<br>81                  | 75     | 987        | 1.8e-<br>83           | (AE001<br>014)<br>cell<br>divisi<br>on<br>contro<br>l   |  |

|        |               |                                  |     |  |  |  |  |  |  |              |    |     |             |  |
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| 165742 | ATU027<br>682 | ATL8C8<br>714:14<br>18..50<br>2  | nap |  |  |  |  |  |  | g44903<br>39 | 75 | 206 | 7.8e-<br>23 | (AL035<br>656)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal           |
| 165743 | ATU027<br>683 | ATL8C1<br>5786:1<br>162..5<br>50 | nap |  |  |  |  |  |  | g31933<br>12 | 75 | 576 | 6.7e-<br>46 | (AF069<br>299)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 165744 | ATU027<br>684 | ATL8C4<br>6772:7<br>00..1        | nap |  |  |  |  |  |  | g19463<br>76 | 75 | 191 | 1.8e-<br>08 | (U9321<br>5)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis                               |



|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|---|
| 165748 | ATU027<br>688 | ATL8C1<br>2134:8<br>33..47<br>7  | nap |  |  |  |  |  |  |  |  |  | g22447<br>36 | 75 | 282  | 2.2e-<br>25  | (D8841<br>5)<br>expans<br>in<br>[Gossy<br>pium<br>hirsut<br>um]  | RGA-<br>like<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165749 | ATU027<br>689 | ATL8C3<br>2666:2<br>324..6<br>19 | nap |  |  |  |  |  |  |  |  |  | g28276<br>62 | 75 | 2339 | 1.7e-<br>232 | (AL021<br>637)<br>Phosph<br>oribos<br>ylanth<br>ranila<br>te<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 165750 | ATU027<br>690 | ATL8C1<br>5268:1<br>..413        | nap |  |  |  |  |  |  |  |  |  | g46462<br>20 | 75 | 418  | 8.7e-<br>28  | (AC007<br>290)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |   |
| 165751 | ATU027<br>691 | ATL8C1<br>4779:4<br>45..15       | nap |  |  |  |  |  |  |  |  |  | g11757<br>22 | 75 | 198  | 8.2e-<br>15  | HYPOTH<br>ETICAL<br>14 KD  |   |

| 165752 | ATU027<br>692 | 3 | ATL8C1<br>9451:1<br>731..1 | nap |  |  |  |  |  |  | g22450<br>09 | 75 | 1770 | 5.0e-<br>185 | PROTEI<br>N IN<br>TRNI<br>INTRON<br>(ORF<br>134)<br>[Zea<br>mays]                      |
|--------|---------------|---|----------------------------|-----|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 165753 | ATU027<br>693 |   | ATL8S1<br>5571:7<br>39..1  | nap |  |  |  |  |  |  | g48743<br>07 | 75 | 142  | 3.6e-<br>16  | (Z9734<br>1)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165754 | ATU027<br>694 |   | ATL8C2<br>3442:2<br>009..1 | nap |  |  |  |  |  |  | g42638<br>30 | 75 | 1878 | 4.3e-<br>140 | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165755 | ATU027<br>695 |   | ATL8S1<br>5098:1           | nap |  |  |  |  |  |  | g29525<br>43 | 74 | 797  | 1.0e-<br>78  | (AF051<br>939)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                    |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
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| 165756 | ATU027<br>696 | ..515                              | 0..484 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | respon<br>se<br>regula<br>tor<br>CtrA<br>[Bruce<br>lla<br>abortu<br>s]  |
|        |               | ATL8C1<br>8577:1<br>1091..<br>6565 | nap    |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC004<br>793)<br>Contai<br>ns<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>(rvt)<br>PF1000<br>78.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165757 | ATU027<br>697 | ATL8C4<br>0030:2<br>3..735         | nap    |  |  |  |  |  |  |  |  |  |  |  |  |  |  | (AC005<br>824)<br>putati<br>ve<br>revers<br>e-<br>transc<br>riptas<br>e<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia                            |



|        |               |                                    |     |  |  |  |  |                                    |      |              |    |      |             |  |
|--------|---------------|------------------------------------|-----|--|--|--|--|------------------------------------|------|--------------|----|------|-------------|--|
|        | 702           | 0699:1<br>009...3<br>13            |     |  |  |  |  |                                    | 38   |              |    |      | 74          | 292)<br>simila<br>r to   |
| 165763 | ATU027<br>703 | ATL8S1<br>3709:1<br>59...67<br>0   | nap |  |  |  |  | ATL8S1<br>3709:1<br>59...65<br>0   | 0.99 | g18773<br>69 | 74 | 327  | 8.6e-<br>32 | (Z9277<br>2)<br>echA3<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]   |
| 165764 | ATU027<br>704 | ATL8C1<br>0297:8<br>226...6<br>050 | nap |  |  |  |  | ATL8C1<br>0297:8<br>164...6<br>089 | 0.98 | g48504<br>12 | 74 | 2792 |             | (AC007<br>288)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 165765 | ATU027<br>705 | ATL8C1<br>8289:1<br>080...1        | nap |  |  |  |  | ATL8C1<br>8289:9<br>84...16<br>2   | 0.97 | g22621<br>59 | 74 | 369  | 3.1e-<br>35 | (AC002<br>329)<br>predic<br>ted<br>protei<br>n<br>simila<br>r to<br>S.pomb<br>e<br>protei<br>n<br>C5H10.<br>03<br>[Arabi<br>dopsis |



|        |               |                                  |     |  |  |  |  |                                  |      |                               |        |             |                        |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|------------------------|--|
| 165766 | ATU027<br>706 | ATL8C2<br>3645:1<br>549..6<br>06 | nap |  |  |  |  | ATL8C2<br>3645:1<br>370..6<br>06 | 0.97 | g34200<br>49                  | 74     | 833         | 1.8e-<br>88            | thalia<br>na]<br>(AC004<br>680)<br>putati<br>ve<br>protei<br>n<br>phosph<br>atase<br>2C<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165767 | ATU027<br>707 | ATL8C4<br>0845:1<br>163..4<br>0  | nap |  |  |  |  | ATL8C4<br>0845:1<br>093..8<br>2  | 0.96 | g34513<br>92                  | 74     | 758         | 1.3e-<br>84            | (AJ001<br>264)<br>mitoch<br>ondria<br>l<br>uncoup<br>ling<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 165768 | ATU027<br>708 | ATL8C3<br>2263:1<br>..1599       | nap |  |  |  |  | ATL8C3<br>2263:1<br>66..13<br>64 | 0.94 | g16660<br>96                  | 74     | 316         | 1.2e-<br>35            | (Y0911<br>3)<br>dioxyg<br>enase<br>[Marah<br>macro<br>carpus]  |
| 165769 | ATU027<br>709 | ATL8C4<br>944:34<br>35..39<br>5  | nap |  |  |  |  | ATL8C4<br>944:33<br>42..20<br>10 | 0.93 | g42204<br>58,<br>g20621<br>67 | 74, 32 | 1262,<br>43 | 2.7e-<br>111,<br>0.012 | (AC006<br>216)<br>Simila<br>r to<br>[Arabi   |

|        |               |                                  |     |  |  |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 165770 | ATU027<br>710 | ATL8C4<br>9274:1<br>..1251       | nap |  |  |  |  |  |  | ATL8C4<br>9274:1<br>008..1<br>133 | 0.91 | g43357<br>21 | 74 | 535  | 6.0e-<br>63  | dopsis<br>thalia<br>nal;<br>(AC001<br>645)<br>Prolin<br>e-rich<br>protei<br>n APG<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC006<br>248)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165771 | ATU027<br>711 | ATL8C3<br>2850:1<br>430..2<br>11 | nap |  |  |  |  |  |  | ATL8C3<br>2850:1<br>430..2<br>13  | 0.91 | g42637<br>68 | 74 | 992  | 2.5e-<br>105 | (AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 165772 | ATU027<br>712 | ATL8C4<br>4883:6<br>10..19<br>31 | nap |  |  |  |  |  |  | ATL8C4<br>4883:8<br>38..19<br>31  | 0.90 | g42622<br>10 | 74 | 1252 | 2.3e-<br>124 | (AC006<br>161)<br>simila<br>r to  |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 165773 | ATU027<br>713 | ATL8C4<br>8170:1<br>..1188        | nap |  |  |  |  | ATL8C4<br>8170:6<br>9..118<br>8   | 0.90 | g40391<br>55 | 74 | 334 | 4.9e-<br>21 | leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 165774 | ATU027<br>714 | ATL8C1<br>0512:2<br>852..2<br>046 | nap |  |  |  |  | ATL8C1<br>0512:2<br>703..2<br>046 | 0.90 | g47340<br>14 | 74 | 421 |             | (AF104<br>258)<br>putati<br>ve<br>copper<br>-<br>induci<br>ble<br>35.6<br>kDa<br>protei<br>n<br>[Festu<br>ca<br>rubra] |
| 165775 | ATU027<br>715 | ATL8C1<br>0262:1<br>..2649        | nap |  |  |  |  | ATL8C1<br>0262:1<br>04..26<br>49  | 0.89 | g45899<br>62 | 74 | 941 |             | (AC007<br>169)<br>putati<br>ve   |

|        |               |                                 |     |  |  |  |  |  |  |                                 |      |                               |        |             |                             |  |
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| 165776 | ATU027<br>716 | ATL8C4<br>1830:5<br>65..1       | nap |  |  |  |  |  |  | ATL8C4<br>1830:3<br>72..23      | 0.89 | g17551<br>62                  | 74     | 414         | 3.9e-<br>41                 | fructo<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165777 | ATU027<br>717 | ATL8C1<br>254:18<br>7..504<br>1 | nap |  |  |  |  |  |  | ATL8C1<br>254:18<br>7..501<br>5 | 0.87 | g54181<br>6                   | 74     | 315         | 7.9e-<br>25                 | protei<br>n<br>kinase<br>-<br>common<br>ice<br>plant<br>[Mesem<br>bryant<br>hemum<br>crysta<br>llinum<br>] |
| 165778 | ATU027<br>718 | ATL8C4<br>5059:1<br>..3740      | nap |  |  |  |  |  |  | ATL8C4<br>5059:3<br>4..374<br>0 | 0.87 | g28798<br>07,<br>g21314<br>17 | 74, 69 | 247,<br>578 | 2.3e-<br>21,<br>4.2e-<br>50 | (AL021<br>813)<br>putati<br>ve dna<br>helica<br>se<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe]           |

|        |               |                           |     |  |  |  |  |  |                                 |      |              |    |      |          |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|------|----------|--|
| 165779 | ATU027<br>719 | ATL8C1<br>0425:9<br>81..1 | nap |  |  |  |  |  | ATL8C1<br>0425:9<br>81..29<br>4 | 0.86 | g46894<br>52 | 74 | 280  |          | hypothetical protein YDR291w - yeast (Saccharomyces cerevisiae) [Saccharomyces cerevisiae] |
| 165780 | ATU027<br>720 | ATL8C3<br>6736:9<br>10..1 | nap |  |  |  |  |  | ATL8C3<br>6736:7<br>13..39      | 0.85 | g44328<br>49 | 74 | 1421 | 6.8e-147 | (AC006300) hypothetical protein [Arabidopsis thaliana]                                     |

|        |               |                            |     |  |  |  |                                 |      |                               |        |             |                             |  |
|--------|---------------|----------------------------|-----|--|--|--|---------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 165781 | ATU027<br>721 | ATL8C2<br>3454:1<br>..998  | nap |  |  |  | ATL8C2<br>3454:4<br>04..95<br>1 | 0.85 | g46999<br>39                  | 74     | 601         | 4.5e-<br>48                 | (AC007<br>166)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165782 | ATU027<br>722 | ATL8C1<br>3040:1<br>..1353 | nap |  |  |  | ATL8C1<br>3040:6<br>1..709      | 0.83 | g32016<br>30,<br>g21911<br>53 | 74, 40 | 161,<br>714 | 2.3e-<br>13,<br>2.4e-<br>73 | (AC004<br>669)<br>putati<br>ve<br>blue<br>copper<br>-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF007<br>269)<br>contai<br>ns<br>simila<br>rity<br>to<br>blue<br>copper<br>protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |



|        |               |                            |     |  |  |  |  |  |                                 |      |                               |        |              |                              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 165787 | ATU027<br>727 | ATL8C4<br>9318:2<br>758..1 | nap |  |  |  |  |  | 5..232<br>0                     | 0.78 | g28276<br>55,<br>g45394<br>50 | 74, 70 | 1206,<br>412 | 2.4e-<br>105,<br>9.4e-<br>42 | putative<br>serine<br>/threo<br>nine<br>protein<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165788 | ATU027<br>728 | ATL8C4<br>5057:1<br>124..1 | nap |  |  |  |  |  | ATL8C4<br>5057:1<br>124..2<br>5 | 0.76 | g32585<br>73                  | 74     | 1161         | 2.2e-<br>103                 | (U8995<br>9)<br>Hypothesis<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                     |



|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165789 | ATU027<br>729 | ATL8C1<br>2314:2<br>336..1 | nap |  |  |  |  | ATL8C1<br>2314:1<br>787..6<br>06 | 0.75 | g45570<br>78 | 74 | 1865 | 7.5e-<br>196 | thalia<br>na]   |
| 165790 | ATU027<br>730 | ATL8S1<br>7749:5<br>63..1  | nap |  |  |  |  | ATL8S1<br>7749:5<br>45..72       | 0.74 | g38613<br>82 | 74 | 338  | 5.8e-<br>30  | (AC007<br>045)<br>putati<br>ve<br>Tall-1<br>pol<br>polypr<br>otein,<br>5,<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165791 | ATU027<br>731 | ATL8C1<br>6519:3<br>119..1 | nap |  |  |  |  | ATL8C1<br>6519:3<br>074..1<br>10 | 0.73 | g27813<br>50 | 74 | 2540 | 1.3e-<br>266 | (AC003<br>113)<br>F2401.<br>6<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165792 | ATU027<br>732 | ATL8C4<br>6342:1<br>..960  | nap |  |  |  |  | ATL8C4<br>6342:4<br>4..952       | 0.72 | g38815<br>05 | 74 | 501  | 5.7e-<br>54  | (Z4735<br>7)<br>simila  |

[illegible]

|        |               |                                  |     |  |  |  |  |               |              |    |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|---------------|--------------|----|------|-------------|---|
| 165793 | ATU027<br>733 | ATL8C2<br>6398:7<br>88..1        | nap |  |  |  | ATL8C2<br>6398:7<br>88..33   | 0.72          | g38795<br>83 | 74 | 406  | 2.6e-<br>36 | ... [ ]<br>(Z8158<br>7)<br>cDNA<br>EST<br>yk213d<br>3.5<br>comes<br>from<br>this<br>gene<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s]   |
| 165794 | ATU027<br>734 | ATL8C3<br>8104:5<br>160..6<br>20 | nap |  |  |  | ATL8C3<br>8104:3<br>046..6<br>20,<br>ATL8C3<br>8104:4<br>860..3<br>570 | 0.71,<br>0.47 | g48951<br>71 | 74 | 4399 | 0.0         | (AC007<br>662)<br>putati<br>ve pol<br>protei<br>n with<br>Zn<br>finger<br>CCHC<br>type<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165795 | ATU027<br>735 | ATL8S2<br>6157:9<br>2..464       | nap |  |  |  | ATL8S2<br>6157:9<br>2..301   | 0.71          | g28530<br>89 | 74 | 521  | 3.1e-<br>52 | (AL021<br>768)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia   |



|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |      |              |  |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|--|
| 165800 | ATU027<br>740 | ATL8C4<br>183:13<br>22..1  | nap |  |  |  |  |  | ATL8C4<br>183:11<br>43..44      | 0.65 | g28275<br>48 | 74 | 928  | 5.0e-<br>90  | (AL021<br>635)<br>cytoch<br>rome<br>P450 -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | um<br>bicolo<br>r];<br>(D8510<br>1)<br>leaf<br>protei<br>n<br>[Ipomo<br>ea<br>nil] |
| 165801 | ATU027<br>741 | ATL8C3<br>7773:1<br>..2057 | nap |  |  |  |  |  | ATL8C3<br>7773:6<br>6..122<br>4 | 0.65 | g45845<br>46 | 74 | 991  | 2.6e-<br>96  | (AL049<br>608)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     | (AL049<br>608)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165802 | ATU027<br>742 | ATL8C3<br>2163:3<br>804..1 | nap |  |  |  |  |  | ATL8C3<br>2163:3<br>199..1<br>2 | 0.62 | g45220<br>05 | 74 | 2529 | 1.2e-<br>226 | (AC007<br>069)<br>putati<br>ve<br>revers<br>e<br>transc  | (AC007<br>069)<br>putati<br>ve<br>revers<br>e<br>transc                            |

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|--------|---------------|----------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 165803 | ATU027<br>743 | ATL8C2<br>9991:7<br>92..1        | nap |  |  |  |  | ATL8C2<br>9991:7<br>78..89      | 0.61 | g45080<br>76 | 74 | 307  | 5.4e-<br>33  | riptase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165804 | ATU027<br>744 | ATL8C3<br>3483:1<br>113..1<br>63 | nap |  |  |  |  | ATL8C3<br>3483:9<br>79..16<br>4 | 0.58 | g39351<br>81 | 74 | 1164 | 3.0e-<br>119 | (AC004<br>557)<br>F17L21<br>.24<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 165805 | ATU027<br>745 | ATL8C4<br>230:15<br>28..1        | nap |  |  |  |  | ATL8C4<br>230:14<br>52..17<br>7 | 0.58 | g45388<br>96 | 74 | 1623 | 5.0e-<br>154 | (AL049<br>482)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 165806 | ATU027<br>746 | ATL8C9<br>925:1.<br>.2623        | nap |  |  |  |  | ATL8C9<br>925:58<br>8..141<br>8 | 0.57 | g48369<br>29 | 74 | 638  | 4.5e-<br>85  | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|--|
| 165807 | ATU027<br>747 | ATL8S1<br>2928:1<br>..530  | nap |  |  |  | ATL8S1<br>2928:4<br>1..503       | 0.56 | g97066       | 74 | 139  | 5.3e-<br>14 | hemagglutinin-associated protein - Vibrio cholerae [Vibrio cholerae] |
| 165808 | ATU027<br>748 | ATL8S2<br>0832:4<br>66..1  | nap |  |  |  | ATL8S2<br>0832:2<br>79..84       | 0.54 | g26357<br>11 | 74 | 108  | 8.9e-<br>09 | (Z99120) transcrip-tional regulator [Bacillus subtilis]              |
| 165809 | ATU027<br>749 | ATL8C1<br>7572:2<br>903..1 | nap |  |  |  | ATL8C1<br>7572:2<br>884..2<br>44 | 0.52 | g42063<br>06 | 74 | 4672 | 0.0         | (AF049110) prpol [Zea mays]  |
| 165810 | ATU027<br>750 | ATL8C3<br>6449:8<br>90..1  | nap |  |  |  | ATL8C3<br>6449:6<br>23..20<br>3  | 0.49 | g41851<br>29 | 74 | 236  | 4.3e-<br>18 | (AC005724) unknown protein [Arabidopsis thaliana]                    |

|        |               |                                 |     |  |  |  |   |               |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|---|---------------|--------------|----|------|--------------|---|
| 165811 | ATU027<br>751 | ATL8C4<br>2501:3<br>231..1      | nap |  |  |  | ATL8C4<br>2501:3<br>128..4<br>45                                    | 0.47          | g32692<br>82 | 74 | 2949 | 7.3e-<br>290 | (AL030<br>978)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 165812 | ATU027<br>752 | ATL8C3<br>0537:2<br>004..1      | nap |  |  |  | ATL8C3<br>0537:1<br>952..9<br>5                                     | 0.47          | g44163<br>01 | 74 | 2838 | 1.6e-<br>260 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |
| 165813 | ATU027<br>753 | ATL8C1<br>001:1.<br>.3094       | nap |  |  |  | ATL8C1<br>001:66<br>..2123<br>,<br>ATL8C1<br>001:30<br>13..26<br>59 | 0.43,<br>0.92 | g43357<br>20 | 74 | 3259 | 3.9e-<br>296 | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e Tal-<br>1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165814 | ATU027<br>754 | ATL8C4<br>9489:9<br>36..19<br>6 | nap |  |  |  | ATL8C4<br>9489:5<br>88..19<br>6                                     | 0.42          | g45444<br>60 | 74 | 726  | 3.2e-<br>69  | (AC006<br>592)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas   |



|        |               |                           |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 165815 | ATU027<br>755 | ATL8S1<br>6513:5<br>42..1 | nap |  |  |  |  | ATL8S1<br>6513:4<br>90..24<br>6 | 0.41 | g30243<br>46 | 74 | 144 | 3.0e-<br>13 | e<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>PLATEL<br>ET-<br>ACTIVA<br>TING<br>FACTOR<br>ACETYL<br>HYDROL<br>ASE IB<br>GAMMA<br>SUBUNI<br>T (PAF<br>ACETYL<br>HYDROL<br>ASE 29<br>KD<br>SUBUNI<br>T)<br>(PAF-<br>AH 29<br>KD<br>SUBUNI<br>T)<br>(PAF-<br>AH<br>GAMMA<br>SUBUNI<br>T)<br>[Bos<br>taurus<br>] |
| 165816 | ATU027<br>756 | ATL8C4<br>2520:6<br>95..1 | nap |  |  |  |  |                                 |      | g45859<br>86 | 74 | 184 | 1.9e-<br>07 | (AC005<br>287)<br>Hypoth<br>etical<br>protei   |

|        |               |                                  |     |  |  |  |  |  |  |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|-------------|--|
| 165817 | ATU027<br>757 | ATL8C2<br>9489:6<br>31..1        | nap |  |  |  |  |  |  | g39414<br>18 | 74 | 939  | 8.0e-<br>90 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF062<br>863)<br>putati<br>ve<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165818 | ATU027<br>758 | ATL8C4<br>6654:1<br>..1055       | nap |  |  |  |  |  |  | g10463<br>77 | 74 | 508  | 5.0e-<br>50 | (S7899<br>4)<br>copper<br>amine<br>oxidas<br>e {C-<br>termin<br>al}<br>{EC<br>1.4.3.<br>6}<br>[Lens<br>culina<br>ris]                            |
| 165819 | ATU027<br>759 | ATL8S1<br>3621:1<br>..324        | nap |  |  |  |  |  |  | g49482<br>1  | 74 | 376  | 1.6e-<br>34 | Myxoco<br>ccus<br>xanthu<br>s []]  |
| 165820 | ATU027<br>760 | ATL8C3<br>3990:1<br>847..7<br>44 | nap |  |  |  |  |  |  | g45443<br>74 | 74 | 1356 |             | (AC006<br>920)<br>unknow<br>n<br>protei  |

|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |  |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|--|------|-------------|---|
| 165821 | ATU027<br>761 | ATL8C7<br>892:48<br>97..1        | nap |  |  |  |  |  |  |  |  | g45443<br>72 | 74 |  | 3157 | 0.0         | (AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165822 | ATU027<br>762 | ATL8C4<br>0959:1.<br>..545       | nap |  |  |  |  |  |  |  |  | g48952<br>60 | 74 |  | 237  | 9.4e-<br>22 | (AC007<br>658)<br>thiore<br>doxin-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 165823 | ATU027<br>763 | ATL8C4<br>2952:8<br>50..12<br>72 | nap |  |  |  |  |  |  |  |  | g45593<br>61 | 74 |  | 435  | 3.2e-<br>46 | (AC006<br>585)<br>hypoht<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 165824 | ATU027        | ATL8S1                           | nap |  |  |  |  |  |  |  |  | g13279       | 74 |  | 152  | 3.5e-       | CHLORO  |

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|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--------------|----|-----|--|--|--|--|--|-------------|--|
|        | 764           | 7144:4<br>13..11<br>0     |     |  |  |  |  |  |  | 2            |    |     |  |  |  |  |  | 10          | PLAST<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L22<br>[Pelar<br>gonium<br>hortor<br>um]  |
| 165825 | ATU027<br>765 | ATL8C6<br>168:17<br>15..1 | nap |  |  |  |  |  |  | g45586<br>64 | 74 | 663 |  |  |  |  |  | 3.4e-<br>81 | (AC007<br>063)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165826 | ATU027<br>766 | ATL8C4<br>2951:4<br>88..1 | nap |  |  |  |  |  |  | g28298<br>97 | 74 | 166 |  |  |  |  |  | 4.7e-<br>11 | (AC002<br>311)<br>Unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 165827 | ATU027<br>767 | ATL8C9<br>468:1.<br>.403  | nap |  |  |  |  |  |  | g22526<br>8  | 74 | 386 |  |  |  |  |  | 1.2e-<br>35 | NADH<br>dehydr<br>ogenas<br>e 2-<br>like<br>ORF<br>180<br>[Nicot<br>iana<br>tabacu]    |



[illegible]

|        |               |                                   |     |  |  |  |  |  |  |                               |        |             |                             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|-------------------------------|--------|-------------|-----------------------------|---|
| 165831 | ATU027<br>771 | ATL8C3<br>5743:2<br>381..5<br>285 | nap |  |  |  |  |  |  | g45389<br>01                  | 74     | 3104        | 0.0                         | (AL049<br>482)<br>RNA-<br>direct<br>ed DNA<br>polyme<br>rase-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165832 | ATU027<br>772 | ATL8C3<br>3603:5<br>16..1         | nap |  |  |  |  |  |  | g40094<br>83                  | 74     | 776         | 1.0e-<br>77                 | (AF068<br>902)<br>orotid<br>ine-<br>5'-<br>decarb<br>oxylas<br>e PyrF<br>[Strep<br>tococc<br>us<br>pneumo<br>niae]        |
| 165833 | ATU027<br>773 | ATL8C9<br>797:40<br>6..158<br>2   | nap |  |  |  |  |  |  | g44689<br>90,<br>g30213<br>36 | 74, 54 | 362,<br>200 | 9.7e-<br>46,<br>1.3e-<br>20 | (AL035<br>605)<br>putati<br>ve<br>protei<br>n<br>[Arabi   |

















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|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 165855 | ATU027<br>795 | ATL8C3<br>5605:7<br>35..1         | nap |  |  |  |  | ATL8C3<br>5605:6<br>89..87        | 0.99 | g13951<br>75 | 73 | 543 | 2.0e-<br>55 | thalia<br>na]  |
| 165856 | ATU027<br>796 | ATL8C3<br>5377:1<br>01..12<br>65  | nap |  |  |  |  | ATL8C3<br>5377:1<br>21..12<br>65  | 0.98 | g36872<br>51 | 73 | 361 | 9.8e-<br>35 | (D4455<br>0)<br>PcbC<br>[Pseud<br>omonas<br>sp.<br>DJ-12]<br>(AC005<br>169)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165857 | ATU027<br>797 | ATL8S1<br>9260:1<br>..597         | nap |  |  |  |  | ATL8S1<br>9260:1<br>07..56<br>5   | 0.97 | g11702<br>62 | 73 | 95  | 7.4e-<br>08 | MINOR<br>FIMBRI<br>AL<br>SUBUNI<br>T HIFD<br>PRECUR<br>SOR<br>[Haemo<br>philus<br>influe<br>nzae]  |
| 165858 | ATU027<br>798 | ATL8C2<br>9590:2<br>965..1<br>997 | nap |  |  |  |  | ATL8C2<br>9590:2<br>724..1<br>997 | 0.95 | g22448<br>96 | 73 | 932 | 1.2e-<br>98 | (Z9733<br>8)<br>simila<br>r to<br>HSR201<br>protei<br>n<br>N.tab<br>cum<br>[Arabi  |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 165859 | ATU027<br>799 | ATL8C1<br>4056:9<br>567..7<br>890 | nap |  |  |  |  | ATL8C1<br>4056:9<br>509..7<br>890 | 0.95 | g26233<br>09 | 73 | 742  | 1.4e-<br>76  | dopsis<br>thalia<br>na]<br>(AC002<br>409)<br>simila<br>r to<br>tgacg-<br>specific<br>ic<br>DNA-<br>bindin<br>g protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 165860 | ATU027<br>800 | ATL8C2<br>3192:1<br>..2876        | nap |  |  |  |  | ATL8C2<br>3192:1<br>50..24<br>78  | 0.92 | g42348<br>52 | 73 | 1305 | 8.2e-<br>151 | (AF082<br>133)<br>gag-<br>pol<br>polypr<br>oteins<br>[Zea<br>mays]   |
| 165861 | ATU027<br>801 | ATL8C4<br>8599:1<br>..874         | nap |  |  |  |  | ATL8C4<br>8599:1<br>12..87<br>4   | 0.91 | g45126<br>85 | 73 | 514  | 1.6e-<br>57  | (AC006<br>931)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]  |
| 165862 | ATU027<br>802 | ATL8C4<br>8286:1<br>108..1        | nap |  |  |  |  | ATL8C4<br>8286:1<br>108..2        | 0.90 | g36953<br>84 | 73 | 253  | 4.0e-<br>12  | (AF096<br>370)<br>contai   |

|        |               |                                  |     |  |  |  |  |  |   |                                 |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|---|---------------------------------|------|--------------|----|-----|-------------|---|
| 165863 | ATU027<br>803 | ATL8C3<br>0995:4<br>66..27<br>98 | nap |  |  |  |  |  | 1 |                                 | 0.89 | g29824<br>35 | 73 | 426 | 1.1e-<br>44 | ns<br>simila<br>rity to the<br>helix-<br>loop-<br>helix<br>DNA-<br>bindin<br>g domain<br>(Pfam:<br>PF0001<br>0 HLH,<br>E-<br>value:<br>0.0046<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165864 | ATU027<br>804 | ATL8C2<br>8254:1<br>..1330       | nap |  |  |  |  |  |   | ATL8C2<br>8254:3<br>2..133<br>0 | 0.86 | g49143<br>21 | 73 | 868 | 4.9e-<br>77 | (AL022<br>224)<br>retrot<br>ranspo<br>son<br>like<br>protei<br>n<br>(fragm<br>ent)<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>489)<br>F14N23<br>.7                               |





|        |               |                                  |     |  |  |  |  |                                  |      |                               |        |              |                              |   |
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| 165868 | ATU027<br>808 | ATL8C3<br>9032:2<br>129..2<br>29 | nap |  |  |  |  | ATL8C3<br>9032:1<br>782..2<br>29 | 0.84 | g17713<br>81                  | 73     | 1264         | 5.7e-<br>119                 | (X9587<br>7)<br>phosph<br>oinosi<br>tide-<br>specif<br>ic<br>phosph<br>olipas<br>e C<br>[Nicot<br>iana<br>rustic<br>a]    |
| 165869 | ATU027<br>809 | ATL8C4<br>9506:2<br>854..4<br>01 | nap |  |  |  |  | ATL8C4<br>9506:2<br>694..4<br>37 | 0.83 | g46782<br>69                  | 73     | 787          | 2.3e-<br>50                  | (AL049<br>660)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165870 | ATU027<br>810 | ATL8C2<br>1201:2<br>420..1       | nap |  |  |  |  | ATL8C2<br>1201:2<br>284..2<br>70 | 0.83 | g23927<br>65,<br>g37460<br>69 | 73, 33 | 455,<br>1098 | 1.7e-<br>39,<br>2.1e-<br>106 | (AC002<br>534)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>311)<br>putati<br>ve |

|        |               |                                   |     |  |  |  |  |  |                                   |      |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--|--|--|--------------|----|------|--------------|--|
| 165871 | ATU027<br>811 | ATL8S3<br>678:1.<br>.409          | nap |  |  |  |  |  | ATL8S3<br>678:70<br>..409         | 0.82 |  |  |  | g37765<br>62 | 73 | 405  | 1.2e-<br>37  | (AC005<br>388)<br>Simila<br>r to<br>gb X80<br>472<br>STS15<br>gene<br>from<br>Solanu<br>m<br>tubero<br>sum.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165872 | ATU027<br>812 | ATL8C1<br>5964:1<br>..931         | nap |  |  |  |  |  | ATL8C1<br>5964:3<br>24..80<br>6   | 0.82 |  |  |  | g33865<br>34 | 73 | 808  | 2.2e-<br>77  | (AF078<br>934)<br>marine<br>r<br>transp<br>osase<br>[Glyci<br>ne<br>max]   |
| 165873 | ATU027<br>813 | ATL8C9<br>627:63<br>61..11<br>020 | nap |  |  |  |  |  | ATL8C9<br>627:77<br>55..10<br>426 | 0.80 |  |  |  | g27393<br>86 | 73 | 1533 | 3.0e-<br>143 | (AC002<br>505)<br>unknow<br>n<br>protei  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165874 | ATU027<br>814 | ATL8C2<br>6969:1<br>..1361       | nap |  |  |  |  |  | ATL8C2<br>6969:6<br>61..13<br>61 | 0.79 | g17314<br>75 | 73 | 1037 | 4.0e-<br>108 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(U3561<br>9)<br>ribulo<br>se-1,5<br>bispho<br>sphate<br>carbox<br>ylase/<br>oxygen<br>ase<br>large<br>subuni<br>t N-<br>methyl<br>transf<br>eras<br>[Nicot<br>iana<br>tabacu<br>m] |
| 165875 | ATU027<br>815 | ATL8C9<br>722:59<br>..1322       | nap |  |  |  |  |  | ATL8C9<br>722:59<br>..1222       | 0.79 | g18711<br>76 | 73 | 343  | 4.5e-<br>29  | (U9043<br>9)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(U9321<br>5)<br>unknow<br>n<br>protei   |
| 165876 | ATU027<br>816 | ATL8C4<br>6726:2<br>175..2<br>43 | nap |  |  |  |  |  | ATL8C4<br>6726:2<br>157..2<br>43 | 0.79 | g19463<br>68 | 73 | 361  | 9.1e-<br>42  | (U9321<br>5)<br>unknow<br>n<br>protei   |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|-------------|---|
| 165877 | ATU027<br>817 | ATL8C3<br>4541:1<br>..1288      | nap |  |  |  |  | ATL8C3<br>4541:2<br>62..96<br>3 | 0.78 | g45593<br>51 | 73 | 1035 | 2.0e-<br>94 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>585)<br>hypo<br>thetical<br>protein<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165878 | ATU027<br>818 | ATL8C9<br>128:26<br>11..69<br>5 | nap |  |  |  |  | ATL8C9<br>128:23<br>48..69<br>5 | 0.78 | g42630<br>63 | 73 | 1270 |             | (AC005<br>142)<br>hypo<br>thetical<br>protein<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165879 | ATU027<br>819 | ATL8C1<br>5924:3<br>52..1       | nap |  |  |  |  | ATL8C1<br>5924:3<br>19..22<br>7 | 0.76 | g38600<br>20 | 73 | 186  | 2.1e-<br>17 | (AF091<br>091)<br>unknow<br>n<br>[Homo<br>sapien<br>s]  |
| 165880 | ATU027<br>820 | ATL8C7<br>393:13<br>37..38<br>9 | nap |  |  |  |  | ATL8C7<br>393:11<br>71..86<br>0 | 0.71 | g31282<br>16 | 73 | 965  | 1.4e-<br>91 | (AC004<br>077)<br>putati<br>ve GA4<br>protein<br>n<br>[Arabi<br>dopsis<br>na]   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 165881 | ATU027<br>821 | ATL8C7<br>736:17<br>19..59<br>1   | nap |  |  |  |  | ATL8C7<br>736:16<br>56..59<br>1   | 0.71 | g41917<br>74 | 73 | 799 | 5.4e-<br>83 | thalia<br>na]<br>(AC005<br>917)<br>putati<br>ve<br>beta-<br>1,3-<br>endogl<br>ucanas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165882 | ATU027<br>822 | ATL8C1<br>3054:5<br>588..3<br>284 | nap |  |  |  |  | ATL8C1<br>3054:4<br>736..3<br>284 | 0.69 | g41651<br>83 | 73 | 290 | 3.5e-<br>14 | (AJ132<br>349)<br>SAP1<br>protei<br>n<br>[Antir<br>rhinum<br>majus]  |
| 165883 | ATU027<br>823 | ATL8C8<br>666:12<br>05..30<br>5   | nap |  |  |  |  | ATL8C8<br>666:86<br>8..485        | 0.69 | g44327<br>99 | 73 | 769 | 1.9e-<br>63 | (AC006<br>437)<br>putati<br>ve<br>vsf-1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 165884 | ATU027<br>824 | ATL8C6<br>221:21<br>5..890        | nap |  |  |  |  | ATL8C6<br>221:21<br>5..556        | 0.68 | g11733<br>09 | 73 | 637 | 4.3e-<br>61 | MITOCH<br>ONDRIA<br>L 40S<br>RIBOSO<br>MAL<br>PROTEI   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165885 | ATU027<br>825 | ATL8C3<br>0937:3<br>160..1<br>05 | nap |  |  |  |  | ATL8C3<br>0937:2<br>919..2<br>18 | 0.68 | g32692<br>82 | 73 | 2731 | 2.0e-<br>288 | N S10<br>PRECUR<br>SOR<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165886 | ATU027<br>826 | ATL8S1<br>1415:1<br>..549        | nap |  |  |  |  | ATL8S1<br>1415:5<br>0..525       | 0.68 | g18545<br>77 | 73 | 208  | 3.3e-<br>15  | (AL030<br>978)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 165887 | ATU027<br>827 | ATL8C2<br>9641:1<br>923..1       | nap |  |  |  |  | ATL8C2<br>9641:1<br>870..6<br>8  | 0.68 | g30212<br>67 | 73 | 1902 | 1.6e-<br>143 | (L4294<br>5)<br>lytR<br>[Staph<br>ylococ<br>cus<br>aureus<br>]   |
| 165888 | ATU027<br>828 | ATL8C4<br>9182:1                 | nap |  |  |  |  | ATL8C4<br>9182:1                 | 0.68 | g45875<br>50 | 73 | 514  | 7.5e-<br>44  | (AL022<br>347)<br>serine<br>/threo<br>nine<br>kinase<br>- like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              | (AC006<br>577)   |

|        |               |                                    |     |  |  |  |  |  |                                  |      |              |    |      |             |   |
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| 165889 | ATU027<br>829 | ATL8C1<br>0941:4<br>626..1<br>0031 | nap |  |  |  |  |  | 885..3<br>89                     | 0.67 | g35137<br>45 | 73 | 4926 | 0.0         | EST<br>gb R64<br>848<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165890 | ATU027<br>830 | ATL8C3<br>7951:8<br>38..22<br>04   | nap |  |  |  |  |  | ATL8C3<br>7951:8<br>38..21<br>95 | 0.67 | g26216<br>58 | 73 | 256  | 2.5e-<br>09 | (AE000<br>840)<br>conser<br>ved<br>protei<br>n<br>[Metha<br>nobact<br>erium                 |



|        |               |                            |     |  |  |  |  |                                 |      |                               |        |              |                              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 165891 | ATU027<br>831 | ATL8C1<br>3093:2<br>932..1 | nap |  |  |  |  | ATL8C1<br>3093:2<br>845..2<br>1 | 0.63 | g40564<br>31,<br>g40564<br>68 | 73, 51 | 1221,<br>720 | 3.3e-<br>115,<br>1.3e-<br>71 | thermo<br>autotr<br>ophicu<br>m]<br>(AC005<br>990)<br>Simila<br>r to<br>gb AJ0<br>02532<br>endo-<br>polyga<br>lactur<br>onase<br>from<br>Arabid<br>opsis<br>thalia<br>na and<br>is a<br>member<br>of the<br>polyga<br>lactur<br>onase<br>family<br>PF 002<br>95.<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC005<br>990)<br>Contai<br>ns<br>simila<br>rity<br>to<br>gb X66 |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 165892 | ATU027<br>832 | ATL8C2<br>3063:1<br>111..1<br>588 | nap |  |  |  |  | ATL8C2<br>3063:1<br>111..1<br>479 | 0.62 | g45103<br>78 | 73 | 241 | 6.4e-<br>13 | (AC007<br>017)<br>hypothetical protein [Arabidopsis thaliana] |
| 165893 | ATU027<br>833 | ATL8C2<br>5819:1                  | nap |  |  |  |  | ATL8C2<br>5819:1                  | 0.59 | g46782<br>85 | 73 | 904 | 1.1e-<br>82 | (AL049<br>660)  |

|        |               |                                 |     |  |  |  |                                 |      |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|------|--------------|---|
| 165894 | ATU027<br>834 | 200..1                          | nap |  |  |  | 144..1<br>83                    | 0.59 | g31352<br>71 | 73 | 2176 | 9.2e-<br>230 | putative protein [Arabidopsis thaliana] (AC003058) putative receptor-like protein kinase [Arabidopsis thaliana] |
| 165895 | ATU027<br>835 | ATL8C4<br>5746:6<br>6..228<br>8 | nap |  |  |  | ATL8C4<br>5746:6<br>6..203<br>4 | 0.58 | g18711<br>85 | 73 | 140  | 0.012        | (U90439) seven in absentia isolog [Arabidopsis thaliana]  |
| 165896 | ATU027<br>836 | ATL8C1<br>3826:8<br>08..79      | nap |  |  |  | ATL8C1<br>3826:4<br>04..79      | 0.56 | g23927<br>66 | 73 | 556  | 1.3e-<br>53  | (AC002534) hypothetical protein [Arabidopsis thaliana]  |

|        |               |                            |     |  |  |  |  |  |               |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------|--------------|----|------|--------------|--|
| 165897 | ATU027<br>837 | ATL8C3<br>5787:1<br>618..1 | nap |  |  |  |  | ATL8C3<br>5787:6<br>48..32<br>0  | 0.54          | g35496<br>83 | 73 | 1763 | 1.6e-<br>169 | dopsis<br>thalia<br>na] (AL031<br>394)<br>beta-<br>xylan<br>endohy<br>drolas<br>e -<br>like<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 165898 | ATU027<br>838 | ATL8C4<br>6677:1<br>109..1 | nap |  |  |  |  | ATL8C4<br>6677:1<br>073..5<br>7  | 0.53          | g11715<br>77 | 73 | 801  | 1.0e-<br>69  | (X9534<br>3)<br>hypers<br>ensiti<br>vity-<br>relate<br>d gene<br>[Nicot<br>iana<br>tabacu<br>m]  |
| 165899 | ATU027<br>839 | ATL8C4<br>9898:3<br>747..1 | nap |  |  |  |  | ATL8C4<br>9898:1<br>339..3<br>75,<br>ATL8C4<br>9898:3<br>747..1<br>626 | 0.51,<br>0.79 | g48369<br>30 | 73 | 3598 | 5.5e-<br>259 | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]  |
| 165900 | ATU027<br>840 | ATL8C2<br>4676:1           | nap |  |  |  |  | ATL8C2<br>4676:5   | 0.50          | g42621<br>75 | 73 | 537  | 1.7e-<br>48  | (AC005<br>508)   |

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|--------|---------------|----------------------------------|-----|--|--|----------------------------------|--|------|--------------|----|------|-------------|---|--|
| 165901 | ATU027<br>841 | ..2887                           |     |  |  | 64..28<br>87                     |  | 0.50 | g11684<br>70 | 73 | 175  | 1.6e-<br>19 | PROTEI<br>N<br>KINASE<br>APK1A<br>[Arabi<br>dopsis<br>thalia<br>na]   | 12894<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165902 | ATU027<br>842 | ATL8C4<br>9536:1<br>633..3<br>98 | nap |  |  | ATL8C4<br>9536:1<br>388..4<br>48 |  | 0.49 | g36953<br>84 | 73 | 222  | 6.3e-<br>13 | (AF096<br>370)<br>contai<br>ns<br>simila<br>rity<br>to the<br>helix-<br>loop-<br>helix<br>DNA-<br>bindin<br>g<br>domain<br>(Pfam:<br>PF0001<br>0 HLH,<br>E-<br>value:<br>0.0046<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 165903 | ATU027<br>843 | ATL8C4<br>584:1.                 | nap |  |  | ATL8C4<br>584:16                 |  | 0.48 | g42638<br>31 | 73 | 3953 | 0.0         | (AC006<br>067)  |  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 165904 | ATU027<br>844 | ATL8C5<br>785:19<br>84..53<br>54 | nap |  |  |  |  | 2..457<br>0                      | 0.46 | g40637<br>60 | 73 | 3190 |              | putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165905 | ATU027<br>845 | ATL8C1<br>5496:2<br>775..5<br>60 | nap |  |  |  |  | ATL8C1<br>5496:2<br>716..7<br>09 | 0.45 | g33778<br>16 | 73 | 2576 | 8.0e-<br>241 | (AC005<br>561)<br>putati<br>ve<br>POL3<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165906 | ATU027<br>846 | ATL8C7<br>810:29<br>29..83<br>9  | nap |  |  |  |  |  |  | ATL8C7<br>810:27<br>03..83<br>9  | 0.43 | 945672<br>98 | 73 | 2078 | 2.5e-<br>206 | dopsis<br>thalia<br>na]<br>(AC006<br>918)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 165907 | ATU027<br>847 | ATL8C2<br>2446:1<br>60..27<br>61 | nap |  |  |  |  |  |  | ATL8C2<br>2446:2<br>22..24<br>59 | 0.42 | g43888<br>34 | 73 | 1853 | 6.0e-<br>200 | (AC006<br>528)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>RPP1,<br>3',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165908 | ATU027<br>848 | ATL8C4<br>8468:8<br>90..1        | nap |  |  |  |  |  |  |                                  |      | g21601<br>36 | 73 | 615  | 7.2e-<br>45  | (AC000<br>375)<br>F19K23<br>.4<br>gene<br>produc<br>t  |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|------|--------------|--|
| 165909 | ATU027<br>849 | ATL8S2<br>2810:5<br>80..22<br>5 | nap |  |  |  |  |  |  |  |  |  | g94519<br>73 | 94   | 0.059        | [Arabi<br>dopsis<br>thalia<br>na]<br>mlgA<br>protei<br>n -<br>Shewan<br>ella<br>colwel<br>liana<br>[Shewa<br>nella<br>colwel<br>liana] |
| 165910 | ATU027<br>850 | ATL8C1<br>8925:7<br>0..908      | nap |  |  |  |  |  |  |  |  |  | g45394<br>68 | 1230 | 8.2e-<br>118 | (AL049<br>500)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165911 | ATU027<br>851 | ATL8S1<br>4848:1<br>..571       | nap |  |  |  |  |  |  |  |  |  | g43097<br>03 | 164  | 3.2e-<br>14  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 165912 | ATU027<br>852 | ATL8C3<br>9183:8<br>92..19      | nap |  |  |  |  |  |  |  |  |  | g45811<br>67 | 807  | 2.7e-<br>78  | (AC006<br>220)<br>putati   |



|        |               |                                   |                            |     |  |  |  |  |  |  |                            |      |              |    |      |              |   |  |
|--------|---------------|-----------------------------------|----------------------------|-----|--|--|--|--|--|--|----------------------------|------|--------------|----|------|--------------|---|--|
| 165913 | ATU027<br>853 | 73                                | ATL8S1<br>7723:5<br>82..82 | nap |  |  |  |  |  |  | ATL8S1<br>7723:5<br>36..82 | 1.00 | g10507<br>21 | 72 | 358  | 2.0e-<br>29  | (X9240<br>5)<br>ompR<br>[Neiss<br>eria<br>mening<br>itidis<br>]   | ve<br>transp<br>oson<br>MuDR<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165914 | ATU027<br>854 | ATL8C1<br>5296:1<br>959..1        | nap                        |     |  |  |  |  |  |  |                            |      | g44163<br>01 | 73 | 2749 | 1.6e-<br>201 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |  |
| 165915 | ATU027<br>855 | ATL8C1<br>8577:5<br>420..7<br>995 | nap                        |     |  |  |  |  |  |  |                            |      | g43357<br>37 | 73 | 887  | 3.2e-<br>73  | (AC006<br>248)<br>putati<br>ve<br>serine<br>/threo<br>nine<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 165916 | ATU027<br>856 | ATL8S8<br>376:1.<br>.593          | nap                        |     |  |  |  |  |  |  |                            |      | g55788<br>7  | 73 | 153  | 5.9e-<br>15  | (U1495<br>2)<br>integr  |  |









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| 165928 | ATU027<br>868 | ATL8C2<br>3281:1<br>107..1 | nap |  |  |  |  |  |  |  |      | g41153<br>74 | 73 | 1479 | 4.6e-<br>123 | marian<br>al<br>(AC005<br>967)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 165929 | ATU027<br>869 | ATL8C1<br>2594:5<br>36..1  | nap |  |  |  |  |  |  |  |      | g38772<br>52 | 73 | 140  | 9.2e-<br>09  | (Z9338<br>2)<br>F45G2.<br>10<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s]                                 |
| 165930 | ATU027<br>870 | ATL8S1<br>6712:5<br>20..94 | nap |  |  |  |  |  |  |  | 1.00 | g31283<br>77 | 72 | 294  | 5.8e-<br>21  | (AF010<br>496)<br>hypoth<br>etical<br>protei<br>n<br>[Rhodo<br>bacter<br>capsul<br>atus]                |
| 165931 | ATU027<br>871 | ATL8C1<br>5222:1<br>..850  | nap |  |  |  |  |  |  |  |      | g27087<br>51 | 73 | 571  | 1.6e-<br>56  | (AC003<br>952)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia]                        |

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| 165932 | ATU027<br>872 | ATL8C3<br>5904:4<br>99..21<br>07  | nap |  |  |  |  |  |  | g17773<br>12 | 73 | 794  | 3.8e-<br>80 | na]<br>(D3062<br>2)<br>novel<br>serine<br>/threo<br>nine<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165933 | ATU027<br>873 | ATL8C4<br>9202:2<br>692..1<br>686 | nap |  |  |  |  |  |  | 0.99         | 72 | 1316 | 3.8e-<br>87 | (AC006<br>836)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 165934 | ATU027<br>874 | ATL8S2<br>2585:1<br>..375         | nap |  |  |  |  |  |  | 0.99         | 72 | 275  | 2.2e-<br>24 | (AL035<br>525)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 165935 | ATU027<br>875 | ATL8C2<br>2077:2<br>106..1<br>100 | nap |  |  |  |  |  |  | 0.99         | 72 | 730  | 5.9e-<br>67 | GLUCAN<br>ENDO-<br>1,3-<br>BETA-<br>GLUCOS<br>IDASE  |

[illegible]



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165937 | ATU027<br>877 | ATL8C1<br>6362:1<br>87..23<br>39 | nap |  |  |  |  | ATL8C1<br>6362:2<br>27..17<br>83 | 0.97 | 936418<br>36 | 72 | 982  | 1.1e-<br>66  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL023<br>094);<br>putati<br>ve<br>serine<br>/threo<br>nine<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165938 | ATU027<br>878 | ATL8S2<br>4469:4<br>88..1        | nap |  |  |  |  | ATL8S2<br>4469:4<br>38..18       | 0.96 | 911432<br>11 | 72 | 394  | 5.2e-<br>33  | (U3430<br>5)<br>ORF9;<br>Method<br>:<br>concep<br>tual<br>transl<br>ation<br>suppli<br>ed by<br>author<br>.<br>[Shige<br>lla<br>sonnei<br>]                    |
| 165939 | ATU027<br>879 | ATL8C1<br>951:51<br>..1879       | nap |  |  |  |  | ATL8C1<br>951:51<br>..1879       | 0.94 | 945809<br>90 | 72 | 1014 | 4.0e-<br>108 | (AF120<br>335)<br>putati<br>ve<br>transp   |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 165940 | ATU027<br>880 | ATL8C1<br>6730:3<br>265..1<br>923 | nap |  |  |  |  |  | ATL8C1<br>6730:3<br>261..1<br>923 | 0.93 | g39245<br>99 | 72 | 1357 | 1.2e-<br>89  | osase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165941 | ATU027<br>881 | ATL8S3<br>0046:5<br>7..538        | nap |  |  |  |  |  | ATL8S3<br>0046:5<br>7..518        | 0.92 | g14498<br>9  | 72 | 226  | 1.3e-<br>18  | (J0280<br>1)<br>thiore<br>doxin<br>C-2<br>[Coryn<br>ebacte<br>rium<br>nephri<br>dil]                                   |
| 165942 | ATU027<br>882 | ATL8C3<br>4262:3<br>557..2<br>327 | nap |  |  |  |  |  | ATL8C3<br>4262:3<br>514..2<br>327 | 0.92 | g99758       | 72 | 1230 | 3.1e-<br>119 | monosa<br>cchari<br>d<br>transp<br>ort<br>protei<br>n STP4<br>-<br>Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165943 | ATU027<br>883 | ATL8C1<br>0747:6<br>58..1       | nap |  |  |  |  | ATL8C1<br>0747:6<br>58..90       | 0.91 | g23219<br>0  | 72 | 243  | 9.2e-<br>23  | thalia<br>na]  |
| 165944 | ATU027<br>884 | ATL8C4<br>4345:3<br>491..1      | nap |  |  |  |  | ATL8C4<br>4345:3<br>491..3<br>15 | 0.90 | g44673<br>59 | 72 | 3089 | 7.7e-<br>291 | GLUTAT<br>HIONE<br>PEROXI<br>DASE<br>HOMOLO<br>G<br>6P229<br>[Nicot<br>iana<br>sylv<br>tris] |
| 165945 | ATU027<br>885 | ATL8C2<br>2701:1<br>268..1      | nap |  |  |  |  | ATL8C2<br>2701:1<br>107..7<br>0  | 0.88 | g45104<br>06 | 72 | 703  | 1.7e-<br>76  | (AC006<br>587)<br>putati<br>ve<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165946 | ATU027<br>886 | ATL8C4<br>5761:1<br>405..3<br>3 | nap |  |  |  |  | ATL8C4<br>5761:1<br>272..3<br>3  | 0.88 | g58482<br>5  | 72 | 141  | 6.7e-<br>19  | B2<br>PROTEI<br>N<br>[Daucu<br>s   |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165947 | ATU027<br>887 | ATL8S2<br>6874:4<br>54..1       | nap |  |  |  |  | ATL8S2<br>6874:4<br>24..11<br>1  | 0.87 | g39293<br>86 | 72 | 325  |              | carota<br>J  |
| 165948 | ATU027<br>888 | ATL8C6<br>392:62<br>6..126<br>8 | nap |  |  |  |  | ATL8C6<br>392:62<br>6..125<br>2  | 0.87 | g27813<br>64 | 72 | 867  | 5.7e-<br>86  | UBIQUI<br>NOL-<br>CYTOCH<br>ROME C<br>REDUCT<br>ASE<br>IRON-<br>SULFUR<br>SUBUNIT<br>(RIESKE<br>IRON-<br>SULFUR<br>PROTEIN)<br>(RISP)<br>[Chromatium<br>vinosum] |
| 165949 | ATU027<br>889 | ATL8C2<br>2470:1<br>..2083      | nap |  |  |  |  | ATL8C2<br>2470:6<br>09..20<br>83 | 0.86 | g44907<br>19 | 72 | 1627 | 4.8e-<br>129 | (AC003<br>113)<br>F24O1.<br>20<br>[Arabis<br>dopsis<br>thaliana]   |
|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              | (AL035<br>709)<br>putative<br>protein<br>[Arabis<br>dopsis<br>thaliana]  |

|        |               |                            |     |  |  |  |                                 |      |              |    |     |             |   |
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| 165950 | ATU027<br>890 | ATL8S2<br>9863:1<br>..579  | nap |  |  |  | ATL8S2<br>9863:7<br>4..453      | 0.86 | g43503<br>9  | 72 | 78  | 0.71        | na]<br>(L1730<br>8)<br>prolin<br>e-rich<br>cell<br>wall<br>protei<br>n<br>[Gossy<br>pium<br>hirsut<br>um]   |
| 165951 | ATU027<br>891 | ATL8S1<br>1592:5<br>33..7  | nap |  |  |  | ATL8S1<br>1592:4<br>99..7       | 0.85 | g11693<br>89 | 72 | 587 | 5.9e-<br>57 | RIBULO<br>SE-<br>PHOSPH<br>ATE 3-<br>EPIMER<br>ASE<br>(PENTO<br>SE-5-<br>PHOSPH<br>ATE 3-<br>EPIMER<br>ASE)<br>(PPE)<br>(R5P3E<br>)<br>[Serra<br>tia<br>marces<br>cens] |
| 165952 | ATU027<br>892 | ATL8C3<br>7777:1<br>319..1 | nap |  |  |  | ATL8C3<br>7777:1<br>319..8<br>8 | 0.84 | g44552<br>06 | 72 | 580 | 2.0e-<br>56 | (AL035<br>440)<br>putati<br>ve<br>beta-<br>1, 3-<br>glucan<br>ase   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |             |  |
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| 165953 | ATU027<br>893 | ATL8C2<br>3509:2<br>197..1       | nap |  |  |  |  | ATL8C2<br>3509:2<br>197..1<br>53 | 0.83 | g45843<br>54 | 72 | 1171 | 4.7e-<br>59 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>420)<br>putati<br>ve<br>PttA-<br>like<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165954 | ATU027<br>894 | ATL8S2<br>1792:1<br>..330        | nap |  |  |  |  | ATL8S2<br>1792:6<br>2..330       | 0.80 | g88669<br>8  | 72 | 423  | 5.0e-<br>40 | (Z4797<br>9)<br>inner<br>membra<br>ne or<br>peripl<br>asmic<br>protei<br>n<br>[Pseud<br>omonas<br>fluore<br>scens]   |
| 165955 | ATU027<br>895 | ATL8C1<br>072:58<br>46..19<br>99 | nap |  |  |  |  | ATL8C1<br>072:58<br>46..22<br>19 | 0.80 | g12804<br>34 | 72 | 120  | 3.9e-<br>17 | (U4201<br>4)<br>hemomu<br>cin<br>[Droso<br>phila<br>melano<br>gaster<br>]  |

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| 165956 | ATU027<br>896 | ATL8C3<br>1924:1<br>100..1        | nap |  |  |  | ATL8C3<br>1924:1<br>100..1<br>0   | 0.79 | g38105<br>93 | 72 | 1640 | 1.6e-<br>153 | (AC005<br>398)<br>putati<br>ve<br>sucros<br>e-<br>proton<br>sympor<br>ter<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165957 | ATU027<br>897 | ATL8C4<br>3843:2<br>181..1<br>015 | nap |  |  |  | ATL8C4<br>3843:1<br>855..1<br>015 | 0.78 | g22447<br>52 | 72 | 1301 |              | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 165958 | ATU027<br>898 | ATL8C3<br>4488:2<br>078..1        | nap |  |  |  | ATL8C3<br>4488:2<br>078..2<br>4   | 0.78 | g37774<br>83 | 72 | 1548 | 4.3e-<br>124 | (AB018<br>695)<br>sulfat<br>e<br>transp<br>orter<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 165959 | ATU027<br>899 | ATL8C1<br>1783:2<br>87..13<br>74  | nap |  |  |  | ATL8C1<br>1783:3<br>06..10<br>24  | 0.78 | g26739<br>11 | 72 | 425  | 5.0e-<br>46  | (AC002<br>561)<br>putati<br>ve<br>squamo<br>sa-<br>promot  |

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| 165960 | ATU027<br>900 | ATL8C4<br>8488:1<br>..1108 | nap |  |  |  | ATL8C4<br>8488:2<br>84..76<br>6  | 0.77 | g88234<br>1  | 72 | 210  | 6.4e-<br>19  | er<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165961 | ATU027<br>901 | ATL8C4<br>7159:2<br>288..1 | nap |  |  |  | ATL8C4<br>7159:2<br>263..1<br>40 | 0.76 | g26493<br>34 | 72 | 119  | 7.4e-<br>06  | (U2470<br>2)<br>LRP1<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165962 | ATU027<br>902 | ATL8C3<br>9018:1<br>..959  | nap |  |  |  | ATL8C3<br>9018:1<br>39..86<br>3  | 0.74 | g19463<br>64 | 72 | 1407 | 1.9e-<br>136 | (AE001<br>018)<br>conser<br>ved<br>hypoth<br>etical<br>protei<br>n<br>[Archa<br>eoglob<br>us<br>fulgid<br>us] |
| 165963 | ATU027<br>903 | ATL8C3<br>3612:1<br>679..1 | nap |  |  |  | ATL8C3<br>3612:7<br>84..31       | 0.73 | g47536<br>57 | 72 | 137  | 0.0093       | (U9321<br>5)<br>lipase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                            |     |  |  |  |                                  |      |              |    |      |              | (AL049<br>751)<br>putati  |



|        |               |        |  |  |  |  |  |     |                                  |                                  |      |                               |        |             |   |
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| 165964 | ATU027<br>904 | 93     |  |  |  |  |  | nap | ATL8C4<br>3440:1<br>613..1       | ATL8C4<br>3440:1<br>335..2<br>49 | 0.71 | g47339<br>82,<br>g45444<br>20 | 72, 70 | 897,<br>595 | ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165965 | ATU027<br>905 |        |  |  |  |  |  | nap | ATL8C4<br>9734:1<br>544..1<br>55 | ATL8C4<br>9734:1<br>452..1<br>55 | 0.70 | g43762<br>03                  | 72     | 2.9e-<br>58 | (U3522<br>6)<br>putati<br>ve<br>cytoch<br>rome<br>P-450<br>[Nicot<br>iana<br>plumba<br>ginifo<br>lia] |
| 165966 | ATU027        | ATL8C1 |  |  |  |  |  | nap | ATL8C1                           | ATL8C1                           | 0.70 | g48952                        | 72     | 5.1e-       | (AC007  |

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| 165967 | 906           | 9012:1<br>..876           | nap |  |  |  | 9012:1<br>35..79<br>9      | 0.70 | g40380<br>51 | 72 | 523 | 8.1e-<br>46 | 53 | 659)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        | ATU027<br>907 | ATL8S2<br>52:466<br>..1   | nap |  |  |  | ATL8S2<br>52:466<br>..7    |      |              |    |     |             |    | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 165968 | ATU027<br>908 | ATL8S1<br>8100:1<br>..493 | nap |  |  |  | ATL8S1<br>8100:9<br>5..415 | 0.69 | g17090<br>36 | 72 | 304 | 9.7e-<br>26 |    | OUTER<br>MEMBRA<br>NE<br>PROTEI<br>N MIP<br>PRECUR<br>SOR<br>(MACRO<br>PHAGE<br>INFECT<br>IVITY<br>POTENT<br>IATOR)<br>(PEPTI<br>DYL-<br>PROLYL<br>CIS-<br>TRANS<br>ISOMER<br>ASE)<br>(PPIAS |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 165969 | ATU027<br>909 | ATL8C6<br>148:26<br>81..1  | nap |  |  |  |  | ATL8C6<br>148:25<br>99..24<br>76 | 0.69 | g37460<br>69 | 72 | 2825 | 1.8e-<br>288 | E)<br>(ROTAM<br>ASE)<br>[Coxie<br>lla<br>burnet<br>ii]  |
| 165970 | ATU027<br>910 | ATL8C8<br>48:275<br>..1754 | nap |  |  |  |  | ATL8C8<br>48:290<br>..1721       | 0.68 | g30333<br>91 | 72 | 759  | 6.9e-<br>67  | (AC004<br>311)<br>putati<br>ve<br>amino<br>acid<br>transp<br>orter<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165971 | ATU027<br>911 | ATL8C3<br>6131:8<br>88..1  | nap |  |  |  |  | ATL8C3<br>6131:4<br>41..18       | 0.68 | g28326<br>12 | 72 | 133  | 4.3e-<br>11  | (AL021<br>711)<br>putati<br>ve<br>protei<br>n<br>(fragm<br>ent)   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |   |
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| 165972 | ATU027<br>912 | ATL8C2<br>4314:4<br>237..2<br>481 | nap |  |  |  |  | ATL8C2<br>4314:4<br>112..3<br>754 | 0.67 | g31504<br>07 | 72 | 298  | 2.2e-<br>28  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC004<br>165)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165973 | ATU027<br>913 | ATL8C1<br>7785:1<br>..2293        | nap |  |  |  |  | ATL8C1<br>7785:1<br>45..19<br>02  | 0.67 | g36458<br>99 | 72 | 3495 | 0.0          | (U6840<br>8) 5'<br>end<br>not<br>determ<br>ined<br>experi<br>mental<br>ly<br>[Zea<br>mays]                                  |
| 165974 | ATU027<br>914 | ATL8C1<br>0445:2<br>531..6<br>28  | nap |  |  |  |  | ATL8C1<br>0445:2<br>457..6<br>28  | 0.66 | g46801<br>80 | 72 | 1679 |              | (AF111<br>709)<br>polypr<br>oteine<br>[Oryza<br>sativa<br>subsp.<br>indica<br>]   |
| 165975 | ATU027<br>915 | ATL8C1<br>258:14<br>66..81        | nap |  |  |  |  | ATL8C1<br>258:13<br>77..81        | 0.66 | g43888<br>28 | 72 | 1850 | 1.1e-<br>185 | (AC006<br>528)<br>putati<br>ve<br>zinc-<br>finger   |

|        |               |                            |     |  |  |  |  |  |  |                                  |      |  |  |                               |        |               |                      |   |
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| 165976 | ATU027<br>916 | ATL8C1<br>2315:2<br>856..1 | nap |  |  |  |  |  |  | ATL8C1<br>2315:2<br>856..1<br>00 | 0.66 |  |  | g29247<br>81,<br>g48867<br>56 | 72, 63 | 3334,<br>1287 | 0.0,<br>7.4e-<br>132 | prote<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC002<br>334)<br>putati<br>ve<br>cellul<br>ose<br>syntha<br>se<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF088<br>917)<br>cellul<br>ose<br>syntha<br>se<br>cataly<br>tic<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>220)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis |
| 165977 | ATU027<br>917 | ATL8C3<br>8151:1<br>831..1 | nap |  |  |  |  |  |  | ATL8C3<br>8151:1<br>720..3<br>05 | 0.65 |  |  | g45811<br>64                  | 72     | 2531          | 3.4e-<br>263         |   |

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|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 165978 | ATU027<br>918 | ATL8C4<br>472:1.<br>.2141        | nap |  |  |  |  | ATL8C4<br>472:11<br>7..214<br>1  | 0.62 | g45811<br>64 | 72 | 1111 | 1.5e-<br>115 | (AC006<br>220)<br>putati<br>ver<br>polyp<br>rotein<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 165979 | ATU027<br>919 | ATL8C4<br>765:1.<br>.1770        | nap |  |  |  |  | ATL8C4<br>765:33<br>..1535       | 0.62 | g47739<br>20 | 72 | 1422 | 1.8e-<br>139 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 165980 | ATU027<br>920 | ATL8C1<br>9940:6<br>66..17<br>91 | nap |  |  |  |  | ATL8C1<br>9940:6<br>66..15<br>99 | 0.61 | g40069<br>02 | 72 | 969  | 8.5e-<br>95  | (Z9970<br>8)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 165981 | ATU027<br>921 | ATL8S1<br>5510:5<br>50..1        | nap |  |  |  |  | ATL8S1<br>5510:1<br>84..79       | 0.58 | g30044<br>80 | 72 | 150  | 6.1e-<br>10  | (AJ228<br>333)<br>revers<br>e<br>transc<br>riptas<br>e                                     |

|        |               |                            |     |  |  |  |  |  |      |  |              |    |      |              |   |
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| 165982 | ATU027<br>922 | ATL8C1<br>0658:1<br>..1704 | nap |  |  |  |  |  | 0.58 |  | 944540<br>12 | 72 | 1012 |              | [Pinus<br>elliott<br>tii]   |
| 165983 | ATU027<br>923 | ATL8C4<br>4715:1<br>..1047 | nap |  |  |  |  |  | 0.57 |  | 927393<br>77 | 72 | 113  | 3.4e-<br>05  | (AL035<br>396)<br>Pollen<br>- specif<br>ic<br>protei<br>n<br>precu<br>sor<br>like<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 165984 | ATU027<br>924 | ATL8S6<br>620:1.<br>.376   | nap |  |  |  |  |  | 0.57 |  | 910730<br>47 | 72 | 180  |              | (AC002<br>505)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>pupi<br>protei<br>n -<br>Pseudo<br>monas<br>putida<br>[Pseud<br>omonas<br>putida<br>] |
| 165985 | ATU027<br>925 | ATL8C1<br>658:29           | nap |  |  |  |  |  | 0.54 |  | 946462<br>27 | 72 | 2573 | 4.8e-<br>239 | (AC007<br>235)  |

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|--------|---------------|---------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 165986 | ATU027<br>926 | 33..1                           | nap |  |  |  | 27..57<br>4                      | 0.53 | g45126<br>31 | 72 | 473 | 6.7e-<br>50 | hypothetical protein [Arabidopsis thaliana] (AC004793) Contains similarity to [Arabidopsis thaliana] |
| 165987 | ATU027<br>927 | ATL8C4<br>2894:3<br>..1000      | nap |  |  |  | ATL8C4<br>2894:3<br>..932        | 0.52 | g17070<br>07 | 72 | 777 | 1.0e-<br>75 | hypothetical protein [Arabidopsis thaliana] (U78721)   |
| 165988 | ATU027<br>928 | ATL8C1<br>0645:8<br>8..121<br>5 | nap |  |  |  | ATL8C1<br>0645:6<br>68..10<br>27 | 0.52 | g43097<br>56 | 72 | 377 |             | putative transposase [Arabidopsis thaliana] (AC006217)   |
| 165989 | ATU027        | ATL8C1                          | nap |  |  |  | ATL8C1                           | 0.51 | g23306       | 72 | 163 |             | (Y1456)  |





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|--------|---------------|-----|----------------------------|-----|--|--|--|--|--|--|-----|----------------------------------|------|--------------|----|------|--------------|---|
| 165994 | ATU027<br>934 | 216 | ATL8S9<br>234:56<br>8..1   | nap |  |  |  |  |  |  | 216 | ATL8S9<br>234:56<br>8..482       | 0.45 | g48951<br>72 | 72 | 227  | 3.4e-<br>24  | definition<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |     |                            |     |  |  |  |  |  |  |     |                                  |      |              |    |      |              | (AC007<br>662)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 165995 | ATU027<br>935 | 216 | ATL8C4<br>5148:1<br>..1738 | nap |  |  |  |  |  |  |     | ATL8C4<br>5148:1<br>88..17<br>38 | 0.45 | g44172<br>66 | 72 | 2234 | 2.0e-<br>155 | (AC007<br>019)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
|        |               |     |                            |     |  |  |  |  |  |  |     |                                  |      |              |    |      |              | (AC007<br>019)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 165996 | ATU027<br>936 |     | ATL8S1<br>1779:2<br>77..1  | nap |  |  |  |  |  |  |     | ATL8S1<br>1779:1<br>99..21       | 0.45 | g22227<br>51 | 72 | 253  | 3.5e-<br>21  | (Z9718<br>2)<br>hypoth<br>etical<br>protei<br>n<br>Rv0607<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis |
|        |               |     |                            |     |  |  |  |  |  |  |     |                                  |      |              |    |      |              | (Z9718<br>2)<br>hypoth<br>etical<br>protei<br>n<br>Rv0607<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis |

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| 165997 | ATU027<br>937 | ATL8C5<br>699:1.<br>.619  | nap |  |  |  |  | ATL8C5<br>699:24<br>3..456 | 0.45 | g34027<br>17 | 72 | 721  |              | J<br>(AC004<br>261)<br>putati<br>ve<br>heat<br>shock<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 165998 | ATU027<br>938 | ATL8C2<br>4287:1<br>..585 | nap |  |  |  |  |                            |      | g11181<br>6  | 72 | 626  | 8.0e-<br>57  | probab<br>le pol<br>polypr<br>otein-<br>relate<br>d<br>protei<br>n 4 -<br>rat<br>[Rattu<br>s<br>norveg<br>icus]           |
| 165999 | ATU027<br>939 | ATL8C9<br>711:1.<br>.1891 | nap |  |  |  |  |                            |      | g33096<br>20 | 72 | 1283 | 1.8e-<br>123 | (AF074<br>916)<br>resist<br>ance<br>to<br>Pseudo<br>monas<br>syring<br>ae<br>protei<br>n 5<br>[Arabi<br>dopsis<br>thalia] |



|        |                 |                           |     |  |  |  |  |  |              |    |      |              |   |
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| 944    | 6297:1<br>..579 |                           |     |  |  |  |  |  | 00           |    |      | 32           | 338)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 166005 | ATU027<br>945   | ATL8C1<br>6342:7<br>27..1 | nap |  |  |  |  |  | g46782<br>07 | 72 | 696  | 2.0e-<br>71  | (AC007<br>134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166006 | ATU027<br>946   | ATL8C8<br>711:1.<br>.1098 | nap |  |  |  |  |  | g33341<br>33 | 72 | 1742 | 1.2e-<br>131 | CYTOCH<br>ROME<br>P450<br>89A2<br>(CYPLX<br>XXIX)<br>(ATH<br>6-1)<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 166007 | ATU027<br>947   | ATL8S2<br>5119:1<br>..406 | nap |  |  |  |  |  | g39550<br>38 | 72 | 99   | 4.4e-<br>05  | (AJ005<br>575)<br>ORF1<br>[Strep<br>tomyce<br>s   |



|        |               |                           |     |  |  |  |  |  |  |  |  |  |              |    |     |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|--|
| 166012 | ATU027<br>952 | ATL8S2<br>6524:4<br>25..1 | nap |  |  |  |  |  |  |  |  |  | g28087<br>62 | 72 | 90  | protein<br>[Arabis<br>dopsis<br>thaliana]  |
| 166013 | ATU027<br>953 | ATL8S1<br>5241:4<br>15..1 | nap |  |  |  |  |  |  |  |  |  | g29443<br>80 | 72 | 195 | (AF048<br>979)<br>NADH-<br>depend<br>ent<br>FMN<br>oxydor<br>educta<br>se<br>[Rhodo<br>coccus<br>erythr<br>opolis<br>] |
| 166014 | ATU027<br>954 | ATL8C1<br>3918:1<br>..894 | nap |  |  |  |  |  |  |  |  |  | g29833<br>65 | 72 | 338 | (AE000<br>708)<br>carbox<br>yl-<br>termin<br>al<br>protea<br>se<br>[Aquif  |





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| 166017 | ATU027<br>957 | ATL8C1<br>6700:3<br>964..3<br>135 | nap |  |  |  |  |  |  | g17857<br>37                  | 72     | 120           | 5.7e-<br>08 | richia<br>colij<br>(Y0850<br>2)<br>orf109<br>b<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 166018 | ATU027<br>958 | ATL8S7<br>418:53<br>..320         | nap |  |  |  |  |  |  | g14431<br>2                   | 72     | 156           | 3.1e-<br>12 | (J0156<br>6)<br>13.8<br>kd ORF<br>[Plasm<br>id<br>ColEl]                               |
| 166019 | ATU027<br>959 | ATL8C4<br>2614:1<br>..952         | nap |  |  |  |  |  |  | g50513<br>6                   | 72     | 294           | 1.4e-<br>19 | (D3079<br>4)<br>ferred<br>oxin<br>[Oryza<br>sativa<br>]                                |
| 166020 | ATU027<br>960 | ATL8C2<br>7631:1<br>..1145        | nap |  |  |  |  |  |  | g48369<br>29                  | 72     | 577           |             | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166021 | ATU027<br>961 | ATL8C4<br>3395:1<br>917..1        | nap |  |  |  |  |  |  | g33675<br>35,<br>g44681<br>04 | 72, 59 | 2616,<br>1459 |             | (AC004<br>392)<br>F8K4.2<br>2<br>[Arabi<br>dopsis                                      |

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| 166022 | ATU027<br>962 | ATL8C2<br>1589:2<br>210..1 | nap |  |  |  |  |  |  | 944552<br>94 | 72 | 937 | 2.8e-<br>93 | thalia<br>nal;<br>(AL022<br>223)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166023 | ATU027<br>963 | ATL8S4<br>797:41<br>4..1   | nap |  |  |  |  |  |  | g12163<br>94 | 72 | 101 | 0.0021      | (U4026<br>5)<br>ATPase<br>subuni<br>t 6<br>[Trypa<br>nosoma<br>cruzi]                                     |
| 166024 | ATU027<br>964 | ATL8C1<br>4111:1<br>..2108 | nap |  |  |  |  |  |  | g45103<br>70 | 72 | 415 | 4.0e-<br>34 | (AC007<br>017)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                        |

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| 166025 | ATU027<br>965 | ATL8C4<br>6311:2<br>119..6<br>84 | nap |  |  |  |  |  |  | g38596<br>00 | 72 | 2546 | 2.3e-<br>242 | (AF104<br>919)<br>T15B16<br>.6<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166026 | ATU027<br>966 | ATL8C2<br>131:18<br>48..36<br>07 | nap |  |  |  |  |  |  | g43253<br>51 | 72 | 3040 | 1.3e-<br>310 | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166027 | ATU027<br>967 | ATL8S8<br>05:513<br>..1          | nap |  |  |  |  |  |  | g43503<br>9  | 72 | 109  | 0.064        | (L1730<br>8)<br>prolin<br>e-rich<br>cell<br>wall<br>protei<br>n<br>[Gossy  |



|        |               |                                   |     |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 166032 | ATU027<br>972 | ATL8C4<br>5546:1<br>758..3<br>532 | nap |  |  |  |  |  |  | g42630<br>63 | 72 | 1949 | 7.4e-<br>162 | the V-<br>ATPase<br>[Neuro<br>spora<br>crassa<br>]   |
| 166033 | ATU027<br>973 | ATL8C4<br>4774:5<br>72..23<br>0   | nap |  |  |  |  |  |  | g45875<br>34 | 72 | 462  | 2.1e-<br>40  | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 166034 | ATU027<br>974 | ATL8C3<br>4617:1<br>734..1<br>187 | nap |  |  |  |  |  |  | g49143<br>60 | 72 | 272  | 2.1e-<br>19  | (AC006<br>577)<br>Belong<br>s to<br>the<br>PF1002<br>40<br>Ubiqui<br>tin<br>family<br>.<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                   |     |  |  |  |  |  |  |              |    |      |              | (AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia  |



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|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|--|-------------------------------|--------|-------------|-----------------------------|--|
| 166038 | ATU027<br>978 | ATL8C1<br>4402:3<br>222..1 | nap |  |  |  |  |  | ATL8C1<br>4402:8<br>34..55<br>7 | 0.99 |  | g40564<br>50,<br>g23927<br>63 | 71, 33 | 533,<br>204 | 5.7e-<br>57,<br>8.6e-<br>18 | 413)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166039 | ATU027<br>979 | ATL8C2<br>7586:1           | nap |  |  |  |  |  | ATL8C2<br>7586:8                | 0.99 |  | g18815<br>85                  | 71     | 422         |                             | (AC005<br>990)<br>Simila<br>r to<br>OBP32p<br>ep<br>protein<br>gb U37<br>698<br>from<br>Arabid<br>opsis<br>thalia<br>na.<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC002<br>534)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(U7248<br>9) |

|        |               |                            |     |  |  |  |  |                            |                                 |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------|---------------------------------|------|--------------|----|------|--------------|---|
| 166040 | ATU027<br>980 | ATL8C4<br>5634:1<br>237..1 | nap |  |  |  |  | 57..46<br>3                | ATL8C4<br>5634:1<br>237..7<br>9 | 0.98 | g32490<br>91 | 71 | 1118 | 1.1e-<br>107 | remori<br>n [Solan<br>um<br>tubero<br>sum]<br>(AC004<br>473)<br>Strong<br>simila<br>rity<br>to<br>water<br>stress<br>-<br>induce<br>d<br>protei<br>n,<br>WSI76<br>isolog<br>T08I13<br>.2<br>gb 227<br>5196<br>from<br>A.<br>thalia<br>na BAC<br>gb AC0<br>02337.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166041 | ATU027<br>981 | ATL8S2<br>7973:5<br>82..1  | nap |  |  |  |  | ATL8S2<br>7973:4<br>54..17 | ATL8S2<br>7973:4<br>54..17      | 0.98 | g31360<br>21 | 71 | 553  | 3.3e-<br>44  | (AL023<br>591)<br>alanyl<br>-trNA<br>synthe   |



|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |  |   |
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| 166042 | ATU027<br>982 | ATL8S1<br>5525:6<br>5..633       | nap |  |  |  |  |  | ATL8S1<br>5525:9<br>3..322       | 0.97 | g36081<br>45 | 71 | 131  | 2.3e-<br>12  | (AC005<br>314)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] | tase<br>[Mycob<br>acteri<br>um<br>leprae<br>] |
| 166043 | ATU027<br>983 | ATL8C3<br>381:93<br>1..342<br>7  | nap |  |  |  |  |  | ATL8C3<br>381:93<br>1..334<br>7  | 0.97 | g23448<br>94 | 71 | 2498 | 9.3e-<br>256 | (AC002<br>388)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] | tase<br>[Mycob<br>acteri<br>um<br>leprae<br>] |
| 166044 | ATU027<br>984 | ATL8C3<br>7732:2<br>498..1<br>95 | nap |  |  |  |  |  | ATL8C3<br>7732:1<br>544..5<br>17 | 0.96 | g22450<br>28 | 71 | 1839 | 1.4e-<br>195 | (Z9734<br>1)<br>limone<br>ne<br>cyclas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]   | tase<br>[Mycob<br>acteri<br>um<br>leprae<br>] |
| 166045 | ATU027<br>985 | ATL8C1<br>065:95<br>9..294       | nap |  |  |  |  |  | ATL8C1<br>065:90<br>5..344       | 0.96 | g17091<br>70 | 71 | 173  | 1.6e-<br>09  | 26S<br>PROTEA<br>SOME<br>REGULA  | tase<br>[Mycob<br>acteri<br>um<br>leprae<br>] |

|        |               |                            |     |  |  |  |  |  |  |                            |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|----------------------------|------|--------------|----|------|--------------|--|
| 166046 | ATU027<br>986 | ATL8C3<br>8290:1<br>..1029 | nap |  |  |  |  |  |  | ATL8C3<br>8290:6<br>8..837 | 0.96 | g43712<br>94 | 71 | 1350 | 3.5e-<br>111 | TORY<br>SUBUNI<br>T MTS3<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe]<br>(AC006<br>260)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166047 | ATU027<br>987 | ATL8C1<br>7362:1<br>..1411 | nap |  |  |  |  |  |  | ATL8C1<br>7362:5<br>7..915 | 0.93 | g23927<br>64 | 71 | 411  | 3.3e-<br>27  | (AC002<br>534)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166048 | ATU027<br>988 | ATL8C1<br>851:15<br>55..1  | nap |  |  |  |  |  |  | ATL8C1<br>851:14<br>82..92 | 0.93 | g29110<br>70 | 71 | 925  | 3.8e-<br>105 | (AL021<br>960)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166049 | ATU027<br>989 | ATL8C1<br>0212:1           | nap |  |  |  |  |  |  | ATL8C1<br>0212:1           | 0.92 | g22450<br>09 | 71 | 1499 |              | (Z9734<br>1)   |



|        |               |    |                                   |     |  |  |  |  |     |                                   |      |              |    |      |             |   |
|--------|---------------|----|-----------------------------------|-----|--|--|--|--|-----|-----------------------------------|------|--------------|----|------|-------------|---|
| 166054 | ATU027<br>994 | 41 | ATL8C1<br>0444:5<br>808..8<br>880 | nap |  |  |  |  | 902 | ATL8C1<br>0444:6<br>048..8<br>292 | 0.90 | g38601<br>67 | 71 | 3350 |             | copper<br>bingin<br>g<br>protei<br>n III<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 166055 | ATU027<br>995 |    | ATL8C1<br>1162:1<br>62..67<br>2   | nap |  |  |  |  |     | ATL8C1<br>1162:1<br>65..66<br>1   | 0.89 | g42637<br>05 | 71 | 377  | 6.6e-<br>35 | (AF098<br>964)<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>RPP1-<br>WSC<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166056 | ATU027<br>996 |    | ATL8S8<br>344:95<br>..589         | nap |  |  |  |  |     | ATL8S8<br>344:32<br>1..497        | 0.86 | g17887<br>74 | 71 | 143  | 1.9e-<br>09 | (AC006<br>223)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |    |                                   |     |  |  |  |  |     |                                   |      |              |    |      |             | (AE000<br>330)<br>orf,  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |                               |        |              |                              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|-------------------------------|--------|--------------|------------------------------|---|
| 166057 | ATU027<br>997 | ATL8C1<br>7771:6<br>87..1        | nap |  |  |  |  |  | ATL8C1<br>7771:6<br>13..31<br>5  | 0.85 | g46894<br>53                  | 71     | 191          | 4.8e-<br>14                  | hypothetical protein [Escherichia coli] (AC006267) predicted protein of unknown function [Arabidopsis thaliana] |
| 166058 | ATU027<br>998 | ATL8C4<br>9761:3<br>56..13<br>54 | nap |  |  |  |  |  | ATL8C4<br>9761:3<br>56..12<br>99 | 0.84 | g13635<br>28                  | 71     | 1239         | 9.1e-<br>123                 | gag protein - maize [Zea mays]  |
| 166059 | ATU027<br>999 | ATL8C1<br>3590:1<br>..2049       | nap |  |  |  |  |  | ATL8C1<br>3590:1<br>49..20<br>49 | 0.83 | g30754<br>01,<br>g47739<br>00 | 71, 46 | 478,<br>1284 | 3.2e-<br>52,<br>3.2e-<br>133 | (AC004484) hypothetical protein [Arabidopsis thaliana]; (AF074021) putative                                     |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 166060 | ATU028<br>000 | ATL8C4<br>4125:5<br>7..183<br>0   | nap |  |  |  |  |  | ATL8C4<br>4125:5<br>7..183<br>0   | 0.81 | g22621<br>43 | 71 | 482 | 2.4e-<br>44 | ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166061 | ATU028<br>001 | ATL8C1<br>4079:4<br>712..1<br>851 | nap |  |  |  |  |  | ATL8C1<br>4079:4<br>712..2<br>488 | 0.80 | g47739<br>10 | 71 | 87  | 0.0011      | (AC002<br>330)<br>putati<br>ve<br>serine<br>/threo<br>nine<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166062 | ATU028<br>002 | ATL8C4<br>1728:3<br>58..14<br>50  | nap |  |  |  |  |  | ATL8C4<br>1728:3<br>58..14<br>33  | 0.79 | g44552<br>03 | 71 | 567 | 6.7e-<br>51 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             | (AL035<br>440)<br>putati<br>ve<br>protei<br>n  |



|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |  |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|--|---|
| 166067 | ATU028<br>007 | ATL8S2<br>4301:5<br>03..9       | nap |  |  |  |  | ATL8S2<br>4301:4<br>17..9       | 0.76 | g41855<br>50 | 71 | 299 | 5.1e-<br>23                                    | n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166068 | ATU028<br>008 | ATL8C4<br>2305:4<br>53..97<br>9 | nap |  |  |  |  | ATL8C4<br>2305:4<br>53..85<br>9 | 0.76 | g40068<br>26 | 71 | 324 | 3.8e-<br>18                                    | (AF108<br>766)<br>LexA<br>repres<br>sor<br>[Rhodo<br>bacter<br>sphaer<br>oides]<br>(AC005<br>970)<br>unknow<br>n protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166069 | ATU028<br>009 | ATL8C4<br>1631:6<br>33..1       | nap |  |  |  |  | ATL8C4<br>1631:6<br>33..12<br>3 | 0.75 | g38314<br>54 | 71 | 617 | 5.7e-<br>65                                    | (AC005<br>700)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166070 | ATU028<br>010 | ATL8C9<br>088:1.<br>.1664       | nap |  |  |  |  | ATL8C9<br>088:75<br>9..166<br>4 | 0.73 | g47739<br>14 | 71 | 580 | (AF147<br>259)<br>No<br>defini<br>tion<br>line |   |



|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|---|
| 166071 | ATU028<br>011 | ATL8S2<br>6621:7<br>68..1       | nap |  |  |  |  | ATL8S2<br>6621:6<br>47..30      | 0.73 | g54364<br>6  | 71 | 534 | found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     | orf1<br>3' of<br>TB-<br>iaaM<br>(broad<br>host<br>range,<br>insert<br>ion<br>elemen<br>t<br>IS870.<br>1) -<br>pti<br>[Agrob<br>acteri<br>um<br>tumefa<br>ciens] |
| 166072 | ATU028<br>012 | ATL8C3<br>5046:3<br>63..99<br>4 | nap |  |  |  |  | ATL8C3<br>5046:6<br>79..86<br>6 | 0.73 | g41153<br>75 | 71 | 934 | (AC005<br>967)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     | (U3976<br>4)<br>eukary<br>otic<br>releas<br>e   |
| 166073 | ATU028<br>013 | ATL8C4<br>9321:1<br>..509       | nap |  |  |  |  | ATL8C4<br>9321:1<br>54..50<br>3 | 0.71 | g10797<br>20 | 71 | 93  | 4.6e-<br>06   |

|        |               |                            |     |  |  |  |  |  |  |      |              |    |     |  |  |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|------|--------------|----|-----|--|--|--|
| 166074 | ATU028<br>014 | ATL8S5<br>40:547<br>..1    | nap |  |  |  |  |  |  | 0.70 | g17068<br>56 | 71 | 394 | 9.2e-<br>23  | FLAGEL<br>LAR<br>BIOSYN<br>THETIC<br>PROTEI<br>N FLIP<br>[Salmo<br>nella<br>typhim<br>urium]         | factor<br>3<br>[Ricin<br>us<br>commun<br>is] |
| 166075 | ATU028<br>015 | ATL8C2<br>1776:1<br>..2130 | nap |  |  |  |  |  |  | 0.70 | g14916<br>15 | 71 | 939 | 5.4e-<br>93  | (X9992<br>3)<br>male<br>steril<br>ity 2-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 166076 | ATU028<br>016 | ATL8S2<br>6765:1<br>..529  | nap |  |  |  |  |  |  | 0.69 | g23227<br>4  | 71 | 86  | 17.6<br>KD<br>CLASS<br>II<br>HEAT<br>SHOCK<br>PROTEI<br>N<br>[Arabi<br>dopsis<br>thalia<br>na] |  |  |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 166077 | ATU028<br>017 | ATL8C3<br>318:1.<br>.1009        | nap |  |  |  | ATL8C3<br>318:21<br>0..326       | 0.68 | g17781<br>41 | 71 | 343  | 1.1e-<br>46  | (U6632<br>1)<br>phosph<br>ate/ph<br>osphate<br>nolpyr<br>uvate<br>transl<br>ocator<br>precu<br>sor;<br>PPT<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166078 | ATU028<br>018 | ATL8C1<br>2114:1<br>..2744       | nap |  |  |  | ATL8C1<br>2114:5<br>3..266<br>0  | 0.68 | g22449<br>29 | 71 | 3537 | 0.0          | (Z9733<br>9)<br>unname<br>d<br>protei<br>n<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166079 | ATU028<br>019 | ATL8C2<br>7332:2<br>016..5<br>28 | nap |  |  |  | ATL8C2<br>7332:1<br>939..5<br>28 | 0.68 | g27958<br>07 | 71 | 628  |              | (AC003<br>674)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166080 | ATU028<br>020 | ATL8C3<br>0524:1                 | nap |  |  |  | ATL8C3<br>0524:1                 | 0.68 | g40068<br>24 | 71 | 1364 | 2.2e-<br>113 | (AC005<br>970)  |

|        |               |                                 |     |  |  |  |                                 |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 166081 | ATU028<br>021 | 811..2<br>48                    | nap |  |  |  | 811..2<br>48                    | 0.64 | g44068<br>02 | 71 | 324  | 0.9998       | (AC006<br>304)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166082 | ATU028<br>022 | ATL8S2<br>5337:4<br>34..10<br>6 | nap |  |  |  | ATL8S2<br>5337:3<br>41..10<br>6 | 0.64 | g33778<br>16 | 71 | 2204 | 1.4e-<br>193 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166083 | ATU028        | ATL8S2                          | nap |  |  |  | ATL8S2                          | 0.63 | g12969       | 71 | 221  | 2.5e-        | (X9593   |

|        |               |                                  |     |  |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
|        | 023           | 5320:1<br>15..56<br>0            |     |  |  |  |  | 5320:1<br>15..40<br>1             |      | 68           |    |      | 16           | 8)<br>rnHB<br>[Porph<br>yromon<br>as<br>gingiv<br>alis]  |
| 166084 | ATU028<br>024 | ATL8S2<br>4525:1<br>..590        | nap |  |  |  |  | ATL8S2<br>4525:4<br>8..569        | 0.62 | g16532<br>94 | 71 | 166  | 4.3e-<br>11  | (D9091<br>2)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]  |
| 166085 | ATU028<br>025 | ATL8C3<br>1182:2<br>250..2<br>11 | nap |  |  |  |  | ATL8C3<br>1182:1<br>986..1<br>163 | 0.61 | g33778<br>16 | 71 | 1858 | 3.0e-<br>163 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166086 | ATU028<br>026 | ATL8S3<br>93:1..                 | nap |  |  |  |  | ATL8S3<br>93:44.                  | 0.60 | g39413<br>68 | 71 | 272  | 3.1e-<br>25  | (AF043<br>654)   |



|        |               |                                 |     |  |  |  |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 166091 | ATU028<br>031 | ATL8C7<br>738:13<br>91..1       | nap |  |  |  |  |  |  | ATL8C7<br>738:13<br>91..41<br>7 | 0.55 | g28327<br>06 | 71 | 631 | 2.4e-<br>55 | dopsis<br>thalia<br>na]<br>(AL021<br>713)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166092 | ATU028<br>032 | ATL8C4<br>4630:9<br>57..1       | nap |  |  |  |  |  |  | ATL8C4<br>4630:9<br>57..67      | 0.53 | g48504<br>03 | 71 | 920 | 2.5e-<br>94 | (AC007<br>357)<br>F3F19.<br>23<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166093 | ATU028<br>033 | ATL8C4<br>4246:8<br>90..37<br>5 | nap |  |  |  |  |  |  | ATL8C4<br>4246:8<br>09..37<br>5 | 0.53 | g39414<br>64 | 71 | 739 | 1.9e-<br>60 | (AF062<br>886)<br>putati<br>ve<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 166094 | ATU028<br>034 | ATL8C1<br>0290:1<br>829..1      | nap |  |  |  |  |  |  | ATL8C1<br>0290:1<br>770..4<br>2 | 0.51 | g47412<br>01 | 71 | 656 |             | (AL049<br>746)<br>putati<br>ve<br>protei<br>n<br>[Arabi   |





|        |               |                                   |     |  |  |  |  |  |  |                                   |      |                               |        |             |                             |   |                                     |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|---|-------------------------------------|
| 166097 | ATU028<br>037 | ATL8C3<br>1562:9<br>7..197<br>3   | nap |  |  |  |  |  |  | ATL8C3<br>1562:1<br>77..19<br>73  | 0.46 | g47339<br>70,<br>g42630<br>53 | 71, 46 | 333,<br>142 | 3.6e-<br>35,<br>5.1e-<br>11 | (AC007<br>264)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | gue<br>[Horde<br>um<br>vulgar<br>e] |
| 166098 | ATU028<br>038 | ATL8C2<br>4755:2<br>921..2<br>233 | nap |  |  |  |  |  |  | ATL8C2<br>4755:2<br>856..2<br>233 | 0.44 | g47551<br>98                  | 71     | 313         | 2.2e-<br>26                 | (AC007<br>018)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |                                     |
| 166099 | ATU028<br>039 | ATL8C2<br>9876:9<br>05..1         | nap |  |  |  |  |  |  | ATL8C2<br>9876:9<br>05..12        | 0.42 | g47739<br>12                  | 71     | 481         | 1.8e-<br>31                 | (AF147<br>259)<br>No  |                                     |

|        |               |                            |     |  |  |  |  |  |   |  |                            |      |  |              |    |      |              |   |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---|--|----------------------------|------|--|--------------|----|------|--------------|---|--|
| 166100 | ATU028<br>040 | ATL8S2<br>8294:1<br>..418  | nap |  |  |  |  |  | 0 |  | ATL8S2<br>8294:5<br>3..412 | 0.42 |  | g28945<br>96 | 71 | 534  | 8.4e-<br>44  | (AL021<br>889)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          | defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166101 | ATU028<br>041 | ATL8C5<br>370:1.<br>.693   | nap |  |  |  |  |  |   |  |                            |      |  | g46782<br>07 | 71 | 630  | 6.8e-<br>60  | (AC007<br>134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] | defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166102 | ATU028<br>042 | ATL8C4<br>2313:1<br>..3031 | nap |  |  |  |  |  |   |  |                            |      |  | g43253<br>51 | 71 | 2700 | 2.2e-<br>284 | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n                                 | defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                 |     |  |  |  |  |  |  |  |  |                               |        |              |                              |   |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|-------------------------------|--------|--------------|------------------------------|---|---|
| 166103 | ATU028<br>043 | ATL8C6<br>768:45<br>32..74<br>8 | nap |  |  |  |  |  |  |  |  | g22449<br>16,<br>948877<br>56 | 71, 52 | 867,<br>1018 | 2.5e-<br>97,<br>2.9e-<br>109 | (Z9733<br>9)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal] | snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166104 | ATU028<br>044 | ATL8C8<br>853:1.<br>.291        | nap |  |  |  |  |  |  |  |  | g24078<br>00                  | 71     | 197          | 9.5e-<br>15                  | (Y1257<br>5)<br>histon<br>e<br>H2A.F/<br>Z<br>[Arabi<br>dopsis                    |   |

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| 166105 | ATU028<br>045 | ATL8C3<br>3257:5<br>002..3<br>496 | nap |  |  |  |  |  |  |  |  |  | g41159<br>21 | 71 | 1859 | 7.5e-<br>189 | thalia<br>nal<br>(AF118<br>222)<br>F3H7.4<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166106 | ATU028<br>046 | ATL8C2<br>5800:3<br>92..74<br>6   | nap |  |  |  |  |  |  |  |  |  | g19944       | 71 | 227  | 8.2e-<br>19  | (X0693<br>0) PR-<br>1a<br>protei<br>n (AA<br>1 -<br>168)<br>[Nicot<br>iana<br>tabacu<br>m]             |
| 166107 | ATU028<br>047 | ATL8C2<br>0395:1<br>..501         | nap |  |  |  |  |  |  |  |  |  | g45080<br>80 | 71 | 268  | 7.0e-<br>19  | (AC005<br>882)<br>69873<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166108 | ATU028<br>048 | ATL8C4<br>1110:8<br>22..11<br>4   | nap |  |  |  |  |  |  |  |  |  | g37639<br>21 | 71 | 818  | 2.2e-<br>73  | (AC004<br>450)<br>putati<br>ve<br>pirin<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]           |





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| 166117 | ATU028<br>057 | ATL8C9<br>448:30<br>4..1          | nap |  |  |  |  |  |  |  |  | g40068<br>17 | 71 | 454  | 1.8e-<br>42  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>970)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166118 | ATU028<br>058 | ATL8C4<br>4309:1<br>307..1<br>708 | nap |  |  |  |  |  |  |  |  | g43357<br>34 | 71 | 644  | 1.3e-<br>38  | (AC006<br>248)<br>putati<br>ve<br>calmod<br>ulin<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 166119 | ATU028<br>059 | ATL8S1<br>9707:2<br>13..1         | nap |  |  |  |  |  |  |  |  | g45844<br>72 | 71 | 122  | 1.0e-<br>08  | (AL049<br>587)<br>hypoth<br>etical<br>protei<br>n<br>[Strep<br>tomyce<br>s<br>coelic<br>olor]                               |
| 166120 | ATU028<br>060 | ATL8C7<br>097:38<br>89..39<br>0   | nap |  |  |  |  |  |  |  |  | g33193<br>60 | 71 | 2451 | 1.4e-<br>191 | (AF077<br>408)<br>contai<br>ns<br>simila  |





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|        | 063           | 7043:3<br>335..1                  |     |  |  |  |  |  |  | 31           |    |      |              |   |  | 141 | 067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166124 | ATU028<br>064 | ATL8C4<br>0425:1<br>..1428        | nap |  |  |  |  |  |  | g45860<br>66 | 71 | 1449 | 3.7e-<br>163 | (AC006<br>194)<br>putati<br>ve pol<br>polypr<br>otein,<br>3',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |  |     |   |
| 166125 | ATU028<br>065 | ATL8C2<br>5202:9<br>097..9<br>828 | nap |  |  |  |  |  |  | g43097<br>03 | 71 | 803  | 2.5e-<br>66  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |  |     |   |
| 166126 | ATU028<br>066 | ATL8C4<br>1515:3<br>09..59        | nap |  |  |  |  |  |  | g36883<br>28 | 71 | 211  | 7.8e-<br>17  | (AJ228<br>325)<br>revers  |  |     |   |



|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 166130 | ATU028<br>070 | ATL8S3<br>86:587<br>..1          | nap |  |  |  |  |  |  |  |  |  | g38803<br>03 | 71 | 81   | 0.95         | n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(Z5423<br>8)<br>T28C6.<br>1<br>[Caeno<br>rhābdi<br>tis<br>elegan<br>s] |
| 166131 | ATU028<br>071 | ATL8C1<br>320:24<br>9..1         | nap |  |  |  |  |  |  |  |  |  | g32528<br>14 | 71 | 181  | 4.1e-<br>14  | (AC004<br>705)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 166132 | ATU028<br>072 | ATL8C4<br>0670:1<br>27..27<br>55 | nap |  |  |  |  |  |  |  |  |  | g36500<br>38 | 71 | 1546 | 3.4e-<br>128 | (AC005<br>396)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 166133 | ATU028<br>073 | ATL8C1<br>8100:3<br>29..16<br>38 | nap |  |  |  |  |  |  |  |  |  | g49143<br>81 | 71 | 1396 | 6.9e-<br>140 | (AC007<br>584)<br>unknown<br>protei<br>n   |

|        |               |                                 |     |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 166134 | ATU028<br>074 | ATL8C2<br>4218:1<br>..920       | nap |  |  |  |  |  |  |  | g31933<br>16 | 71 | 1266 | 7.2e-<br>115 | (AF069<br>299)<br>contai<br>ns<br>simila<br>rity<br>to<br>nucleo<br>tide<br>sugar<br>epimer<br>ases<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166135 | ATU028<br>075 | ATL8C4<br>6863:9<br>97..1       | nap |  |  |  |  |  |  |  | g45843<br>54 | 71 | 400  | 9.7e-<br>32  | (AC006<br>420)<br>putati<br>ve<br>PttA-<br>like<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 166136 | ATU028<br>076 | ATL8S2<br>9411:4<br>33..14<br>2 | nap |  |  |  |  |  |  |  | g17229<br>17 | 71 | 124  | 1.5e-<br>09  | HYPOTH<br>ETICAL<br>14.9<br>KD<br>PROTEI   |



|        |               |                                   |     |  |  |  |  |                                   |      |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--|--------------|----|------|--------------|--|
| 166140 | ATU028<br>080 | ATL8C3<br>6649:1<br>92..67<br>0   | nap |  |  |  |  | ATL8C3<br>6649:1<br>97..67<br>0   | 0.94 |  | g45672<br>54 | 70 | 790  | 4.2e-<br>81  | cunicu<br>lus]<br>(AC007<br>070)<br>putati<br>ve myb<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166141 | ATU028<br>081 | ATL8S2<br>8945:3<br>51..1         | nap |  |  |  |  | ATL8S2<br>8945:3<br>33..25<br>3   | 0.93 |  | g84914<br>5  | 70 | 170  | 2.1e-<br>14  | (U2674<br>6)<br>protei<br>n<br>kinase<br>BNPK-2<br>[Brass<br>ica<br>napus]                               |
| 166142 | ATU028<br>082 | ATL8C4<br>1743:1<br>..3202        | nap |  |  |  |  | ATL8C4<br>1743:6<br>7..279<br>0   | 0.93 |  | g37790<br>26 | 70 | 1896 | 1.9e-<br>207 | (AC005<br>171)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 166143 | ATU028<br>083 | ATL8C1<br>0940:5<br>692..2<br>016 | nap |  |  |  |  | ATL8C1<br>0940:4<br>468..2<br>016 | 0.90 |  | g25296<br>78 | 70 | 180  | 5.5e-<br>06  | (AC002<br>535)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis   |

|        |               |                           |     |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------|-----|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 166144 | ATU028<br>084 | ATL8S2<br>5789:4<br>93..1 | nap |  |  |  | ATL8S2<br>5789:4<br>20..37      | 0.89 | g29095<br>27 | 70 | 236 | 2.1e-<br>19 | thalia<br>nal<br>(AL021<br>932)<br>hypoth<br>etical<br>protei<br>n<br>Rv0452<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 166145 | ATU028<br>085 | ATL8C3<br>811:14<br>43..1 | nap |  |  |  | ATL8C3<br>811:13<br>39..58<br>6 | 0.89 | g12796<br>40 | 70 | 323 | 1.4e-<br>32 | (X9220<br>4) NAM<br>[Petun<br>ia x<br>hybrid<br>a]  |
| 166146 | ATU028<br>086 | ATL8S5<br>123:35<br>4..1  | nap |  |  |  | ATL8S5<br>123:35<br>4..13       | 0.89 | g58475<br>2  | 70 | 211 | 4.6e-<br>17 | AMINOP<br>EPTIDA<br>SE N<br>(ALPHA<br>-<br>AMINO<br>CYLPEP<br>TIDE<br>HYDROL<br>ASE)<br>[Caulo<br>bacter<br>cresce<br>ntus]     |
| 166147 | ATU028<br>087 | ATL8C2<br>933:1.<br>.603  | nap |  |  |  | ATL8C2<br>933:54<br>..286       | 0.88 | g47690<br>04 | 70 | 123 | 2.2e-<br>14 | (AF140<br>598)<br>ring-<br>box<br>protei  |

|        |               |                           |     |  |  |  |  |  |  |                            |      |              |    |     |             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|----------------------------|------|--------------|----|-----|-------------|--|
| 166148 | ATU028<br>088 | ATL8S2<br>8609:9<br>..564 | nap |  |  |  |  |  |  | ATL8S2<br>8609:2<br>1..557 | 0.88 | g45123<br>65 | 70 | 210 | 5.9e-<br>17 | n 1<br>[Homo<br>sapien<br>s]<br>(AB011<br>837)<br>enoyl<br>CoA<br>hydrat<br>ase<br>[Bacil<br>lus<br>halodu<br>rans]<br>(AF036<br>940)<br>2-<br>hydrox<br>ychrom<br>ene<br>carbox<br>ylate<br>isomer<br>ase<br>[Pseud<br>omonas<br>sp.<br>U2] |
| 166149 | ATU028<br>089 | ATL8S5<br>134:42<br>5..1  | nap |  |  |  |  |  |  | ATL8S5<br>134:42<br>5..27  | 0.87 | g42204<br>31 | 70 | 130 | 8.6e-<br>10 | (U3434<br>6)<br>unknow<br>n<br>[Parac<br>occus<br>denitr<br>ifican<br>s]<br>(AF000<br>684)<br>putati   |
| 166150 | ATU028<br>090 | ATL8S7<br>341:34<br>..574 | nap |  |  |  |  |  |  | ATL8S7<br>341:34<br>..568  | 0.87 | g10028<br>63 | 70 | 188 | 4.0e-<br>10 |  |
| 166151 | ATU028<br>091 | ATL8S1<br>2311:5<br>41..1 | nap |  |  |  |  |  |  | ATL8S1<br>2311:4<br>30..50 | 0.86 | g29830<br>18 | 70 | 207 | 1.6e-<br>19 |  |



|        |               |                                  |     |  |  |  |  |               |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|---------------|--------------|----|------|--------------|--|
| 166152 | ATU028<br>092 | ATL8C4<br>8473:1<br>..1059       | nap |  |  |  | ATL8C4<br>8473:9<br>0..105<br>9                                      | 0.85          | g48951<br>90 | 70 | 617  | 5.7e-<br>42  | (AC007<br>661)<br>unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 166153 | ATU028<br>093 | ATL8S2<br>0244:5<br>15..1        | nap |  |  |  | ATL8S2<br>0244:4<br>57..20   | 0.84          | g25012<br>14 | 70 | 239  | 3.7e-<br>21  | THIOL:<br>DISULF<br>IDE<br>INTERC<br>HANGE<br>PROTEI<br>N DSBG<br>PRECUR<br>SOR<br>[Esche<br>richia<br>coli] |
| 166154 | ATU028<br>094 | ATL8C1<br>9455:1<br>05..26<br>74 | nap |  |  |  | ATL8C1<br>9455:1<br>05..44<br>3,<br>ATL8C1<br>9455:9<br>69..26<br>60 | 0.84,<br>0.86 | g28282<br>84 | 70 | 1089 | 7.0e-<br>122 | (AL021<br>687)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 166155 | ATU028        | ATL8C5                           | nap |  |  |  | ATL8C5   | 0.84          | g10762       | 70 | 927  | 1.4e-        | cucumi   |

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|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--|--|--------------|--|
| 166156 | 095           | 0074:1<br>..2132           | nap |  |  |  |  | 0074:1<br>94..20<br>38           | 0.84 | g40385<br>92 | 74 |      |  |  | 94           | sin<br>(EC<br>3.4.21<br>.25)<br>precu<br>sor -<br>muskne<br>lon<br>(fragm<br>ent)<br>[j]               |
|        | ATU028<br>096 | ATL8C7<br>4:3904<br>..754  | nap |  |  |  |  | ATL8C7<br>4:3793<br>..770        |      |              | 70 | 1239 |  |  | 1.5e-<br>139 | (YI040<br>3)<br>RNA-<br>direct<br>ed RNA<br>polyme<br>rase<br>[Lycop<br>ersico<br>n<br>escule<br>ntum] |
| 166157 | ATU028<br>097 | ATL8C1<br>5672:8<br>05..93 | nap |  |  |  |  | ATL8C1<br>5672:7<br>31..25<br>4  | 0.80 | g45389<br>17 | 70 | 152  |  |  | 2.2e-<br>22  | (AL049<br>482)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 166158 | ATU028<br>098 | ATL8C4<br>1136:1<br>..2367 | nap |  |  |  |  | ATL8C4<br>1136:5<br>46..23<br>67 | 0.79 | g41153<br>63 | 70 | 1985 |  |  | 1.4e-<br>182 | (AC005<br>957)<br>putati<br>ve<br>diseas<br>e<br>resist  |

[illegible]

|        |               |                                  |     |  |  |  |  |   |               |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|---|---------------|--------------|----|------|--------------|---|
| 166159 | ATU028<br>099 | ATL8S7<br>990:1.<br>.280         | nap |  |  |  |  | ATL8S7<br>990:54<br>..280   | 0.78          | g26213<br>32 | 70 | 127  | 1.3e-<br>09  | (AE000<br>813)<br>conser<br>ved<br>protei<br>n<br>[Metha<br>nobact<br>erium<br>thermo<br>autotr<br>ophicu<br>m] |
| 166160 | ATU028<br>100 | ATL8C4<br>180:75<br>..2150       | nap |  |  |  |  | ATL8C4<br>180:75<br>..1517<br>,<br>ATL8C4<br>180:20<br>06..16<br>85 | 0.78,<br>0.69 | g28299<br>23 | 70 | 587  | 1.2e-<br>45  | (AC002<br>291)<br>Simila<br>r to<br>uridyl<br>yl<br>transf<br>erases<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 166161 | ATU028<br>101 | ATL8C1<br>3044:4<br>54..38<br>43 | nap |  |  |  |  | ATL8C1<br>3044:4<br>54..37<br>23                                    | 0.77          | g37460<br>69 | 70 | 2778 | 1.2e-<br>284 | (AC005<br>311)<br>putati<br>ve<br>revers<br>e<br>transc<br>rintas   |

|        |               |                                 |     |  |  |  |  |  |  |               |              |    |     |             |  |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|---------------|--------------|----|-----|-------------|--|--|
| 166162 | ATU028<br>102 | ATL8C1<br>8920:3<br>452..1      | nap |  |  |  |  |  | ATL8C1<br>8920:1<br>307..1<br>78,<br>ATL8C1<br>8920:3<br>452..2<br>393 | 0.77,<br>0.84 | g10649<br>31 | 70 | 676 | 1.5e-<br>81 | (X9296<br>5)<br>cyclin<br>A-like<br>protei<br>n<br>[Nicot<br>iana<br>tabacu<br>m]            | e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166163 | ATU028<br>103 | ATL8C3<br>7826:1<br>..3891      | nap |  |  |  |  |  | ATL8C3<br>7826:2<br>22..31<br>35                                       | 0.77          | g16527<br>33 | 70 | 680 | 1.6e-<br>44 | (D9090<br>8)<br>glycog<br>en<br>operon<br>protei<br>n GlgX<br>[Synec<br>hocyst<br>is<br>sp.] |  |
| 166164 | ATU028<br>104 | ATL8C4<br>1154:1<br>..531       | nap |  |  |  |  |  | ATL8C4<br>1154:1<br>01..45<br>8  | 0.76          | g24942<br>80 | 70 | 429 | 3.7e-<br>28 | ELONGA<br>TION<br>FACTOR<br>TS<br>(EF-<br>TS)<br>[Synec<br>hocyst<br>is<br>sp.]              |  |
| 166165 | ATU028<br>105 | ATL8C3<br>2533:8<br>2..237<br>1 | nap |  |  |  |  |  | ATL8C3<br>2533:8<br>2..231<br>8  | 0.76          | g45444<br>06 | 70 | 679 | 3.9e-<br>76 | (AC006<br>955)<br>hypoth<br>etical   |  |

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| 166166 | ATU028<br>106 | ATL8S1<br>8314:4<br>02..1         | nap |  |  |  | ATL8S1<br>8314:3<br>60..11<br>5   | 0.75 | g14079<br>8  | 70 | 581  | 3.3e-<br>56  | HYPOTH<br>ETICAL<br>21.2<br>KD<br>PROTEI<br>N IN<br>HUTC<br>3'REGI<br>ON<br>[Pseud<br>omonas<br>putida<br>] |
| 166167 | ATU028<br>107 | ATL8C3<br>9909:1<br>..2070        | nap |  |  |  | ATL8C3<br>9909:1<br>58..19<br>45  | 0.74 | g48504<br>12 | 70 | 1352 | 1.4e-<br>140 | (AC007<br>288)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 166168 | ATU028<br>108 | ATL8C1<br>4435:6<br>175..5<br>507 | nap |  |  |  | ATL8C1<br>4435:6<br>175..5<br>507 | 0.74 | g28326<br>82 | 70 | 135  | 0.58         | (AL021<br>712)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia                             |

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| 166169 | ATU028<br>109 | ATL8C3<br>2184:1<br>247..4<br>64 | nap |  |  |  | ATL8C3<br>2184:1<br>166..4<br>64 | 0.72 | g45080<br>76 | 70 | 255  | 1.1e-<br>26  | na]<br>(AC005<br>882)<br>55659<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 166170 | ATU028<br>110 | ATL8C3<br>873:15<br>89..31<br>7  | nap |  |  |  | ATL8C3<br>873:15<br>28..40<br>6  | 0.72 | g33353<br>59 | 70 | 728  | 1.0e-<br>79  | (AC003<br>028)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 166171 | ATU028<br>111 | ATL8C1<br>5785:8<br>1..132<br>1  | nap |  |  |  | ATL8C1<br>5785:9<br>5..130<br>5  | 0.69 | g26606<br>67 | 70 | 523  | 1.2e-<br>52  | (AC002<br>342)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166172 | ATU028<br>112 | ATL8C2<br>2420:1<br>810..1       | nap |  |  |  | ATL8C2<br>2420:1<br>775..2<br>2  | 0.67 | g46801<br>80 | 70 | 1597 | 4.4e-<br>133 | (AF111<br>709)<br>polypr<br>otein<br>[Oryza<br>sativa<br>subsp.<br>indica<br>]                   |
| 166173 | ATU028<br>113 | ATL8C7<br>087:1.                 | nap |  |  |  | ATL8C7<br>087:10                 | 0.67 | g33954<br>29 | 70 | 371  | 2.4e-<br>35  | (AC004<br>683)   |

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| 166174 | ATU028<br>114 | .1191                     | nap |  |  |  | 7..118<br>4                     | 0.66 | g41153<br>66 | 70 | 866  | 4.7e-<br>68 | hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>957)<br>revers<br>e transc<br>riptas<br>e-like<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 166175 | ATU028<br>115 | ATL8C3<br>4591:1<br>..934 | nap |  |  |  | ATL8C3<br>4591:2<br>56..66<br>8 | 0.66 | g42630<br>63 | 70 | 1024 | 1.1e-<br>92 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>142)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]     |
| 166176 | ATU028<br>116 | ATL8C1<br>413:11<br>44..1 | nap |  |  |  | ATL8C1<br>413:10<br>15..40<br>8 | 0.66 | g45389<br>91 | 70 | 404  | 1.0e-<br>38 | (AL049<br>481)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]  |

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| 166177 | ATU028<br>117 | ATL8C1<br>3248:1<br>..642  | nap |  |  |  | ATL8C1<br>3248:5<br>72..69       | 0.65 | g45859<br>34 | 70 | 133  | 8.2e-<br>09  | (AC007<br>211)<br>putati<br>ve<br>ser/th<br>r kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166178 | ATU028<br>118 | ATL8C1<br>1302:1<br>086..1 | nap |  |  |  | ATL8C1<br>1302:1<br>060..3<br>47 | 0.65 | g48369<br>49 | 70 | 1083 | 3.4e-<br>119 | (AC006<br>085)<br>RNA<br>helica<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 166179 | ATU028<br>119 | ATL8S2<br>0298:5<br>35..70 | nap |  |  |  | ATL8S2<br>0298:5<br>31..70       | 0.63 | g40625<br>00 | 70 | 91   | 0.47         | (D9073<br>1)<br>ProW<br>protei<br>n<br>homolo<br>g<br>[Esche<br>richia<br>coli]           |
| 166180 | ATU028<br>120 | ATL8C1<br>335:17<br>74..1  | nap |  |  |  | ATL8C1<br>335:17<br>00..69       | 0.62 | g28326<br>46 | 70 | 1775 | 2.6e-<br>191 | (AL021<br>710)<br>MuDR<br>transp<br>osable<br>elemen<br>t -<br>like<br>protei             |



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| 166181 | ATU028<br>121 | ATL8C2<br>2812:1<br>..3182 | nap |  |  |  |  |  | ATL8C2<br>2812:3<br>06..31<br>82 | 0.62 | g14916<br>15 | 70 | 888 | 2.8e-<br>77 | n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                            |     |  |  |  |  |  |                                  |      |              |    |     |             | (X9992<br>3)<br>male<br>steril<br>ity 2-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 166182 | ATU028<br>122 | ATL8C5<br>473:1.<br>.1251  | nap |  |  |  |  |  | ATL8C5<br>473:74<br>..1175       | 0.62 | g45394<br>22 | 70 | 657 | 3.7e-<br>77 | (AL049<br>171)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
|        |               |                            |     |  |  |  |  |  |                                  |      |              |    |     |             |   |
| 166183 | ATU028<br>123 | ATL8C1<br>0573:6<br>34..46 | nap |  |  |  |  |  | ATL8C1<br>0573:4<br>91..18<br>0  | 0.62 | g11720<br>07 | 70 | 280 | 1.4e-<br>23 | PUTATI<br>VE<br>PANTOA<br>TE--<br>BETA-<br>ALANIN<br>E<br>LIGASE<br>(PANTO<br>THENAT<br>E<br>SYNTH<br>E TASE) |

|        |               |                                 |     |  |  |  |  |  |                                  |      |                               |        |              |                              |  |
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| 166184 | ATU028<br>124 | ATL8C2<br>6520:2<br>538..1      | nap |  |  |  |  |  | ATL8C2<br>6520:2<br>481..4<br>52 | 0.61 | g42636<br>55                  | 70     | 1628         | 6.0e-<br>180                 | (PANTO<br>ATE<br>ACTIVA<br>TING<br>ENZYME<br>)<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe]<br>(AC006<br>136)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166185 | ATU028<br>125 | ATL8C4<br>7461:6<br>192..2<br>3 | nap |  |  |  |  |  | ATL8C4<br>7461:6<br>192..6<br>18 | 0.60 | g45443<br>72,<br>g44328<br>01 | 70, 30 | 2191,<br>354 | 1.2e-<br>237,<br>1.7e-<br>32 | (AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC006<br>437)<br>unknow  |

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| 166186 | ATU028<br>126 | ATL8C1<br>2166:2<br>03...39<br>30 | nap |  |  |  |  |  | 0.58 | g45860<br>66 | 70 | 2122 | 2.0e-<br>217 | n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC006<br>194)<br>putati<br>ve pol<br>ypr<br>oteins,<br>3',<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166187 | ATU028<br>127 | ATL8C1<br>7616:5<br>52...1        | nap |  |  |  |  |  | 0.56 | g33778<br>09 | 70 | 487  | 4.3e-<br>63  | (AF075<br>597)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s<br>(DNA-<br>bindin<br>g and<br>dimeri<br>zation<br>domain   |



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| 166190 | ATU028<br>130 | ATL8S9<br>93:35.<br>.506        | nap |  |  | ATL8S9<br>93:35.<br>.182        | 0.54 | g46894<br>51 | 70 | 387 | 3.0e-<br>23 | (AC006<br>267)<br>hypo-<br>thetical<br>protein<br>[Arabidopsis<br>thaliana]                             |
| 166191 | ATU028<br>131 | ATL8C3<br>3921:7<br>99..19<br>8 | nap |  |  | ATL8C3<br>3921:6<br>35..20<br>1 | 0.53 | g47411<br>85 | 70 | 420 |             | (AL049<br>746)<br>hypo-<br>thetical<br>protein<br>[Arabidopsis<br>thaliana]                             |
| 166192 | ATU028<br>132 | ATL8C4<br>3933:6<br>49..42<br>1 | nap |  |  | ATL8C4<br>3933:5<br>87..44<br>4 | 0.51 | g42622<br>12 | 70 | 210 |             | (AC006<br>161)<br>putative<br>leucine<br>zipper<br>transcription<br>factor<br>[Arabidopsis<br>thaliana] |
| 166193 | ATU028<br>133 | ATL8C4<br>6435:1<br>203..1      | nap |  |  | ATL8C4<br>6435:1<br>203..1<br>3 | 0.50 | g31504<br>07 | 70 | 384 | 6.8e-<br>35 | (AC004<br>165)<br>hypo-<br>thetical<br>protein  |

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| 166194 | ATU028<br>134 | ATL8S2<br>9002:4<br>09..30       | nap |  |  |  |  |  | ATL8S2<br>9002:2<br>58..55       | 0.50 | g30470<br>70 | 70 | 373  | 2.4e-<br>31  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF058<br>825)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166195 | ATU028<br>135 | ATL8S6<br>684:47<br>4..33        | nap |  |  |  |  |  | ATL8S6<br>684:47<br>2..171       | 0.46 | g16527<br>93 | 70 | 234  |              | (D9090<br>8)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]   |
| 166196 | ATU028<br>136 | ATL8C2<br>5353:1<br>608..1<br>53 | nap |  |  |  |  |  | ATL8C2<br>5353:1<br>488..5<br>84 | 0.46 | g36953<br>96 | 70 | 1324 | 5.8e-<br>120 | (AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila    |



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| 166200 | ATU028<br>140 | ATL8C4<br>19:157<br>..977  | nap |  |  |  |  |  |  | g34136<br>98 | 70 | 659  | 5.4e-<br>56  | (AC004<br>747)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 166201 | ATU028<br>141 | ATL8S2<br>5034:1<br>8..276 | nap |  |  |  |  |  |  | g14431<br>2  | 70 | 192  | 6.0e-<br>15  | (J0156<br>6)<br>13.8<br>kd ORF<br>[Plasm<br>id<br>ColE1]  |
| 166202 | ATU028<br>142 | ATL8C6<br>133:1.<br>.1015  | nap |  |  |  |  |  |  | g39285<br>43 | 70 | 1327 | 6.6e-<br>136 | (AB016<br>819)<br>UDP-<br>glucos<br>e<br>glucos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166203 | ATU028<br>143 | ATL8C2<br>2001:6<br>21..1  | nap |  |  |  |  |  |  | g44068<br>06 | 70 | 1033 | 5.6e-<br>32  | (AC006<br>201)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |



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| 166204 | ATU028<br>144 | ATL8C3<br>6410:2<br>329..4<br>077 | nap |  |  |  |  |  |  | g45811<br>64 | 70 | 1231 | 1.8e-<br>126 | (AC006<br>220)<br>putati<br>ve<br>polyp<br>rotein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166205 | ATU028<br>145 | ATL8C4<br>9268:1<br>..425         | nap |  |  |  |  |  |  | g28326<br>75 | 70 | 168  | 3.0e-<br>12  | (AL021<br>712)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166206 | ATU028<br>146 | ATL8C3<br>4969:6<br>04..1         | nap |  |  |  |  |  |  | g33675<br>87 | 70 | 634  | 1.3e-<br>52  | (AL031<br>135)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]     |
| 166207 | ATU028<br>147 | ATL8S1<br>2766:3<br>08..1         | nap |  |  |  |  |  |  | g41848<br>8  | 70 | 304  | 5.7e-<br>21  | HYPOTH<br>ETICAL<br>15.9<br>KD<br>PROTEI<br>N IN<br>RBN-<br>FDHE<br>INTERG<br>ENIC      |





166215 166216 166217 166218  
 155 156 157 158  
 7442:7 0958:7 8275:1 1718:5  
 41..1 26..1 ..601 85..1  
 ATL8C4 ATL8S1 ATL8S1 ATL8C1  
 nap nap nap nap  
 70 70 70 70  
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| 166215 | ATU028<br>155 | ATL8C4<br>7442:7<br>41..1 | nap |  |  |  |  |  |  |  |  |  | g40493<br>41 | 70 | 1050 | 3.7e-<br>105 | [Arabi<br>dopsi<br>thalia<br>na]<br>(AL034<br>567)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsi<br>thalia<br>na] |
| 166216 | ATU028<br>156 | ATL8S1<br>0958:7<br>26..1 | nap |  |  |  |  |  |  |  |  |  | g54388<br>9  | 70 | 724  | 2.6e-<br>66  | BIOTIN<br>SYNTHA<br>SE<br>(BIOTI<br>N<br>SYNTH<br>E)<br>TASE)<br>[Serra<br>tia<br>marces<br>cens]                     |
| 166217 | ATU028<br>157 | ATL8S1<br>8275:1<br>..601 | nap |  |  |  |  |  |  |  |  |  | g42621<br>75 | 70 | 451  | 2.9e-<br>27  | (AC005<br>508)<br>12894<br>[Arabi<br>dopsi<br>thalia<br>na]   |
| 166218 | ATU028<br>158 | ATL8C1<br>1718:5<br>85..1 | nap |  |  |  |  |  |  |  |  |  | g38772<br>52 | 70 | 129  | 6.7e-<br>07  | (Z9338<br>2)<br>F45G2.<br>10<br>[Caeno<br>rhabdi<br>tis<br>elegan   |

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| 166219 | ATU028<br>159 | ATL8C2<br>3193:1<br>..1107        | nap |  |  |  |                                  |      | g27087<br>42 | 70 | 535  | 4.6e-<br>43 | (AC003<br>952)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166220 | ATU028<br>160 | ATL8C1<br>0129:1<br>253..3<br>06  | nap |  |  |  | ATL8C1<br>0129:1<br>055..3<br>06 | 1.00 | g21941<br>19 | 69 | 506  |             | (AC002<br>062)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 166221 | ATU028<br>161 | ATL8C4<br>7214:5<br>296..2<br>535 | nap |  |  |  |                                  |      | g27393<br>66 | 70 | 417  | 1.8e-<br>18 | (AC002<br>505)<br>SF16<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 166222 | ATU028<br>162 | ATL8C2<br>2723:6<br>46..13<br>25  | nap |  |  |  |                                  |      | g43371<br>90 | 70 | 1003 | 7.9e-<br>78 | (AC006<br>403)<br>hypoth<br>etical<br>protei<br>n   |



|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |  |
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| 166227 | ATU028<br>167 | ATL8C3<br>9518:4<br>728..6<br>002 | nap |  |  |  |  |  |  |  |  | g44173<br>05 | 70 | 922 | 1.5e-<br>86 | (AC006<br>446)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166228 | ATU028<br>168 | ATL8C3<br>1243:1<br>736..2<br>45  | nap |  |  |  |  |  |  |  |  | g44553<br>65 | 70 | 417 | 3.1e-<br>40 | (AL035<br>524)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 166229 | ATU028<br>169 | ATL8S2<br>3137:1<br>86..65<br>6   | nap |  |  |  |  |  |  |  |  | g29842<br>72 | 70 | 206 | 2.6e-<br>19 | (AE000<br>769)<br>hypoth<br>etical<br>protei<br>n<br>[Aquif<br>ex<br>aeolic<br>us]     |
| 166230 | ATU028<br>170 | ATL8C4<br>1035:1<br>179..2<br>28  | nap |  |  |  |  |  |  |  |  | g47739<br>14 | 70 | 437 | 4.4e-<br>36 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia  |





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| 166233 | ATU028<br>173 | ATL8C3<br>193:10<br>7..138<br>8  | nap |  |  |  |  |  |  |  |  |  | g46999<br>37                  | 70     | 837         | 1.7e-<br>83                 | zinc<br>finger<br>motif<br>prosite:<br>QDOC<br>50158)<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC007<br>166)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166234 | ATU028<br>174 | ATL8C4<br>9702:1<br>..1103       | nap |  |  |  |  |  |  |  |  |  | g49143<br>30                  | 70     | 610         | 1.1e-<br>61                 | (AC005<br>489)<br>F14N23<br>.16<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166235 | ATU028<br>175 | ATL8C3<br>2539:4<br>039..4<br>21 | nap |  |  |  |  |  |  |  |  |  | g45811<br>43,<br>g28276<br>37 | 69, 40 | 247,<br>305 | 4.5e-<br>24,<br>5.6e-<br>21 | (AC006<br>919)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AL021<br>636)   |

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| 166236 | ATU028<br>176 | ATL8C8<br>200:12<br>23..29<br>0 | nap |  |  |  |  | ATL8C8<br>200:11<br>94..29<br>0 | 0.98 | g45080<br>76                  | 69     | 285         | 5.4e-<br>24                 | putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166237 | ATU028<br>177 | ATL8C4<br>7477:2<br>135..1      | nap |  |  |  |  | ATL8C4<br>7477:1<br>879..5<br>6 | 0.97 | g32506<br>97,<br>g34137<br>10 | 69, 44 | 677,<br>146 | 3.6e-<br>68,<br>3.5e-<br>13 | (AC005<br>882)<br>55659<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166238 | ATU028<br>178 | ATL8S2<br>1092:4<br>81..48      | nap |  |  |  |  | ATL8S2<br>1092:4<br>75..48      | 0.93 | g17082<br>27                  | 69     | 219         | 1.4e-<br>17                 | (AL024<br>486)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC004<br>747)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                 |     |  |  |  |  |                                 |      |                               |        |             |                             | TRANSC<br>RIPTIO<br>NAL<br>ACTIVA<br>TOR  |

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| 166239 | ATU028<br>179 | ATL8C2<br>4607:2<br>69..14<br>94 | nap |  |  |  |  |  |  | 0.91 | g22449<br>14 | 69 | 1645 | 6.3e-<br>157 | HLVU<br>[Vibri<br>O<br>choler<br>ael]<br>(Z9733<br>9)<br>simila<br>rity<br>to<br>probab<br>le<br>splici<br>ng<br>factor<br>Ceprp2<br>1<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166240 | ATU028<br>180 | ATL8S1<br>1196:1<br>86..61<br>3  | nap |  |  |  |  |  |  | 0.90 | g28285<br>44 | 69 | 128  | 7.3e-<br>11  | (U8995<br>7)<br>UreX<br>[Actin<br>obacil<br>lus<br>pleuro<br>pneumo<br>niae]   |
| 166241 | ATU028<br>181 | ATL8S1<br>7837:4<br>35..1        | nap |  |  |  |  |  |  | 0.88 | g42404<br>32 | 69 | 194  | 5.2e-<br>19  | (AF080<br>235)<br>reduct<br>ase<br>homolo<br>g<br>[Strep<br>tomyce<br>s<br>cyanog  |

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| 166242 | ATU028<br>182 | ATL8C9<br>710:87<br>4..162<br>2 | nap |  |  |  | ATL8C9<br>710:87<br>4..155<br>1 | 0.87 | g31766<br>79 | 69 | 518 | 4.8e-<br>52 | enus]<br>(AC003<br>671)<br>F1707.<br>8<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166243 | ATU028<br>183 | ATL8S5<br>72:543<br>..1         | nap |  |  |  | ATL8S5<br>72:511<br>..85        | 0.87 | g30061<br>28 | 69 | 395 | 2.1e-<br>36 | (AJ004<br>870)<br>hypoht<br>etical<br>protei<br>n<br>[Therm<br>oanaer<br>obacte<br>rium<br>thermo<br>saccha<br>rolyti<br>cum]            |
| 166244 | ATU028<br>184 | ATL8C3<br>1443:9<br>19..63<br>9 | nap |  |  |  | ATL8C3<br>1443:8<br>71..63<br>9 | 0.86 | g31525<br>85 | 69 | 436 | 7.3e-<br>41 | (AC002<br>986)<br>Contai<br>ns<br>simila<br>rity<br>to<br>auxin-<br>induce<br>d<br>protei<br>n<br>TM018A<br>10.6<br>from<br>A.<br>thalia |

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| 166245 | ATU028<br>185 | ATL8C2<br>5254:7<br>44..23<br>84 | nap |  |  |  |  |  | ATL8C2<br>5254:7<br>44..22<br>49 | 0.85 |  |  | g38343<br>24 | 69 | 137 | 1.8e-<br>12  | na BAC<br>gb AFO<br>13294.<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 166246 | ATU028<br>186 | ATL8C1<br>3217:2<br>019..8<br>61 | nap |  |  |  |  |  | ATL8C1<br>3217:1<br>976..8<br>61 | 0.85 |  |  | g16528<br>65 | 69 | 330 | 2.1e-<br>33  | (D9090<br>9)<br>NADH<br>dehydr<br>ogenas<br>e<br>[Synec<br>hocyst<br>is<br>sp.] |
| 166247 | ATU028<br>187 | ATL8C3<br>1178:1<br>..1147       | nap |  |  |  |  |  | ATL8C3<br>1178:7<br>5..988       | 0.83 |  |  | g28800<br>50 | 69 | 936 | 1.9e-<br>100 | (AC002<br>340)<br>putati<br>ve<br>protei<br>n                                   |

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| 166248 | ATU028<br>188 | ATL8C6<br>504:20<br>09..30<br>68 | nap |  |  |  |  | ATL8C6<br>504:21<br>12..25<br>57 | 0.83 | g30803<br>94 | 69 | 226 | 9.2e-<br>26 | kinase<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AE022<br>603)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166249 | ATU028<br>189 | ATL8C1<br>7118:1<br>..1293       | nap |  |  |  |  | ATL8C1<br>7118:1<br>93..12<br>93 | 0.82 | g33778<br>33 | 69 | 935 | 1.5e-<br>82 | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Nicoti<br>ana<br>tabacu<br>m<br>probab<br>le<br>integr<br>ase<br>(GB:X8<br>0830)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166250 | ATU028<br>190 | ATL8C2<br>3561:1<br>254..7<br>41 | nap |  |  |  |  | ATL8C2<br>3561:1<br>184..7<br>41 | 0.81 | g38314<br>61 | 69 | 660 | 6.8e-<br>67 | (AC005<br>700)<br>hypo<br>thetical   |

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| 166251 | ATU028<br>191 | ATL8C1<br>3288:1<br>..2223      | nap |  |  |  |  | ATL8C1<br>3288:6<br>92..22<br>23 | 0.80 | g22621<br>03 | 69 | 972  | 1.5e-<br>105 | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC002<br>343)<br>unknow<br>n protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166252 | ATU028<br>192 | ATL8C5<br>326:79<br>8..252      | nap |  |  |  |  | ATL8C5<br>326:74<br>0..290       | 0.80 | g42180<br>06 | 69 | 238  | 3.7e-<br>20  | (AC006<br>135)<br>putati<br>ve protei<br>n kinase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166253 | ATU028<br>193 | ATL8C8<br>301:26<br>63..13<br>8 | nap |  |  |  |  | ATL8C8<br>301:20<br>18..34<br>1  | 0.80 | g47739<br>08 | 69 | 2271 | 7.3e-<br>216 | (AF147<br>259)<br>No defini<br>tion line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166254 | ATU028<br>194 | ATL8C2<br>6042:1                | nap |  |  |  |  | ATL8C2<br>6042:6                 | 0.79 | g43357<br>37 | 69 | 642  | 2.4e-<br>64  | (AC006<br>248)   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |  |
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|        |               | ..1135                            |     |  |  |  |  | 7..113<br>5                       |      |              |    |      |              | putati<br>ve<br>serine<br>/threo<br>nine<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 166255 | ATU028<br>195 | ATL8C3<br>4572:1<br>..1385        | nap |  |  |  |  | ATL8C3<br>4572:1<br>60..12<br>62  | 0.78 | g38057<br>69 | 69 | 1285 | 3.9e-<br>122 | (AC005<br>693)<br>putati<br>ve<br>mudR-<br>like<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166256 | ATU028<br>196 | ATL8C1<br>9752:1<br>002..2<br>966 | nap |  |  |  |  | ATL8C1<br>9752:1<br>002..2<br>781 | 0.78 | g22447<br>84 | 69 | 1473 | 2.9e-<br>153 | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 166257 | ATU028<br>197 | ATL8C3<br>8081:1<br>..1003        | nap |  |  |  |  | ATL8C3<br>8081:6<br>9..948        | 0.77 | g43143<br>86 | 69 | 1046 | 1.3e-<br>90  | (AC006<br>232)<br>putati<br>ve rac<br>GTPase<br>activa<br>ting<br>protei                               |



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| 166258 | ATU028<br>198 | ATL8C4<br>796:44<br>00..20<br>94 | nap |  |  |  |  | ATL8C4<br>796:42<br>14..20<br>94 | 0.76 | g45811<br>64 | 69 | 825  | 6.6e-<br>88  | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>220)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166259 | ATU028<br>199 | ATL8C1<br>5518:2<br>012..1       | nap |  |  |  |  | ATL8C1<br>5518:2<br>012..7<br>5  | 0.75 | g37774<br>83 | 69 | 1515 | 1.3e-<br>129 | (AB018<br>695)<br>sulfat<br>e<br>transp<br>orter<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166260 | ATU028<br>200 | ATL8C2<br>4858:2<br>484..4<br>23 | nap |  |  |  |  | ATL8C2<br>4858:2<br>484..4<br>23 | 0.73 | g33778<br>45 | 69 | 909  | 3.5e-<br>78  | (AF076<br>274)<br>contai<br>ns<br>simila<br>rity<br>to the<br>basic<br>region<br>plus<br>leucin<br>e<br>zipper<br>trancr<br>iption |

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| 166261 | ATU028<br>201 | ATL8C3<br>9280:9<br>20..19<br>62 | nap |  |  |  |  |  | ATL8C3<br>9280:1<br>835..1<br>481 | 0.73 | g44551<br>52 | 69 | 484 | 1.2e-<br>48 | factors<br>(Pfam:<br>bZIP.h<br>mm,<br>score:<br>12.77)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166262 | ATU028<br>202 | ATL8C2<br>1775:1<br>..314        | nap |  |  |  |  |  | ATL8C2<br>1775:1<br>88..31<br>4   | 0.73 | g42204<br>78 | 69 | 115 | 4.4e-<br>08 | (AC006<br>069)<br>hypothe<br>tical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 166263 | ATU028<br>203 | ATL8C4<br>7143:1<br>931..6<br>81 | nap |  |  |  |  |  | ATL8C4<br>7143:1<br>771..1<br>061 | 0.72 | g28326<br>78 | 69 | 519 | 3.8e-<br>58 | (AL021<br>712)<br>putati<br>ve<br>protein<br>[Arabi<br>na]                                  |

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| 166264 | ATU028<br>204 | ATL8C5<br>794:52<br>..1214 | nap |  |  |  | ATL8C5<br>794:52<br>..928       | 0.71 | g32928<br>29 | 69 | 921  |              |  | dopsis<br>thalia<br>na]  |
| 166265 | ATU028<br>205 | ATL8C7<br>932:34<br>02..1  | nap |  |  |  | ATL8C7<br>932:34<br>02..16      | 0.68 | g42063<br>06 | 69 | 1453 | 3.5e-<br>121 |  | (AL031<br>018)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 166266 | ATU028<br>206 | ATL8S1<br>8739:8<br>4..565 | nap |  |  |  | ATL8S1<br>8739:8<br>4..416      | 0.67 | g11756<br>84 | 69 | 332  | 7.7e-<br>17  |  | (AF049<br>110)<br>prpol<br>[Zea<br>mays]   |
| 166267 | ATU028<br>207 | ATL8C4<br>7167:1<br>..1063 | nap |  |  |  | ATL8C4<br>7167:8<br>3..100<br>3 | 0.67 | g24941<br>32 | 69 | 1434 | 1.5e-<br>149 |  | HYPOTH<br>ETICAL<br>PROTEI<br>N<br>HI1198<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd]               |
|        |               |                            |     |  |  |  |                                 |      |              |    |      |              |  | (AC002<br>376)<br>Contai<br>ns<br>simila<br>rity<br>to<br>human<br>dimeth<br>ylani<br>line<br>monoox |

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| 166268 | ATU028<br>208 | ATL8C2<br>6443:1<br>..821        | nap |  |  |  | ATL8C2<br>6443:4<br>24..81<br>4  | 0.66 | g46783<br>02 | 69 | 424 | 3.6e-<br>43 | ygenase<br>(gb M6<br>4082).<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 166269 | ATU028<br>209 | ATL8S2<br>6730:5<br>72..31       | nap |  |  |  | ATL8S2<br>6730:4<br>71..18<br>6  | 0.65 | g46999<br>36 | 69 | 377 |             | (AL049<br>655)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 166270 | ATU028<br>210 | ATL8C4<br>9979:1<br>832..4<br>46 | nap |  |  |  | ATL8C4<br>9979:1<br>006..4<br>46 | 0.65 | g45824<br>55 | 69 | 328 | 4.4e-<br>34 | (AC007<br>071)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia |

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| 166271 | ATU028<br>211 | ATL8C2<br>3782:6<br>79..15<br>08 | nap |  |  |  | ATL8C2<br>3782:6<br>79..14<br>62 | 0.64 |  | g47259<br>55 | 69 | 820 | 2.2e-<br>84 | nal<br>(AL049<br>730)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]    |
| 166272 | ATU028<br>212 | ATL8C1<br>044:15<br>21..81<br>5  | nap |  |  |  | ATL8C1<br>044:15<br>21..81<br>5  | 0.64 |  | g46894<br>77 | 69 | 265 | 1.0e-<br>21 | (AC007<br>213)<br>pseud<br>ogene<br>[Arabi<br>dopsis<br>thalia<br>nal]                        |
| 166273 | ATU028<br>213 | ATL8C4<br>8260:1<br>..1020       | nap |  |  |  | ATL8C4<br>8260:7<br>5..102<br>0  | 0.64 |  | g44067<br>60 | 69 | 101 | 3.5e-<br>07 | (AC006<br>836)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]       |
| 166274 | ATU028<br>214 | ATL8C2<br>4303:1<br>..301        | nap |  |  |  | ATL8C2<br>4303:4<br>8..301       | 0.63 |  | g33778<br>46 | 69 | 366 | 6.4e-<br>32 | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal] |

|        |               |                                 |     |  |  |  |   |               |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|---|---------------|--------------|----|-----|-------------|--|
| 166275 | ATU028<br>215 | ATL8C4<br>6943:5<br>6..149<br>6 | nap |  |  |  | ATL8C4<br>6943:5<br>6..595<br>ATL8C4<br>6943:1<br>449..1<br>328 | 0.63,<br>0.81 | g45672<br>54 | 69 | 562 | 6.4e-<br>60 | (AC007<br>070)<br>putati<br>ve myb<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 166276 | ATU028<br>216 | ATL8C2<br>914:1.<br>.2336       | nap |  |  |  | ATL8C2<br>914:25<br>6..233<br>6                                 | 0.61          | g45824<br>55 | 69 | 316 | 2.1e-<br>31 | (AC007<br>071)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166277 | ATU028<br>217 | ATL8C3<br>2368:1<br>..1394      | nap |  |  |  | ATL8C3<br>2368:1<br>130..3<br>22                                | 0.60          | g44173<br>05 | 69 | 840 | 1.2e-<br>80 | (AC006<br>446)<br>hypoeth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 166278 | ATU028<br>218 | ATL8C2<br>749:1.<br>.667        | nap |  |  |  | ATL8C2<br>749:15<br>8..590                                      | 0.60          | g45126<br>49 | 69 | 894 | 3.6e-<br>88 | (AC007<br>048)<br>hypoeth<br>etical<br>protei<br>n<br>[Arabi   |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166279 | ATU028<br>219 | ATL8C3<br>6731:9<br>86..1       | nap |  |  |  |  | ATL8C3<br>6731:8<br>65..11<br>0  | 0.59 | g32818<br>52 | 69 | 871  | 1.4e-<br>80  | dopsis<br>thalia<br>nal<br>(AL031<br>004)<br>peroxi<br>dase -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166280 | ATU028<br>220 | ATL8C4<br>9228:1<br>..1510      | nap |  |  |  |  | ATL8C4<br>9228:1<br>50..13<br>70 | 0.58 | g19463<br>56 | 69 | 1215 | 3.1e-<br>128 | (U9321<br>5)<br>hypoth<br>etical<br>protei<br>n<br>H1.2fl<br>k<br>[Arabi<br>dopsis<br>thalia<br>nal]                       |
| 166281 | ATU028<br>221 | ATL8C1<br>214:54<br>8..117<br>7 | nap |  |  |  |  | ATL8C1<br>214:89<br>6..574       | 0.58 | g43097<br>03 | 69 | 152  | 2.1e-<br>15  | (AC006<br>266)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                      |
| 166282 | ATU028<br>222 | ATL8C4<br>64:131                | nap |  |  |  |  | ATL8C4<br>64:117                 | 0.58 | g44903<br>39 | 69 | 224  | 1.4e-<br>21  | (AL035<br>656)   |

|        |               |                            |     |                                  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|----------------------------------|----------------------------------|------|--------------|----|------|--------------|--|
| 166283 | ATU028<br>223 | 4..494                     | nap | ATL8C2<br>291:57<br>54..50<br>10 | 4..564                           | 0.57 | g38926<br>99 | 69 | 194  | 4.0e-<br>23  | putative<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166284 | ATU028<br>224 | ATL8C4<br>4347:1<br>121..1 | nap | ATL8C4<br>4347:1<br>056..2<br>26 | ATL8C2<br>291:56<br>11..51<br>97 | 0.54 | g46894<br>79 | 69 | 154  | 1.6e-<br>10  | (AL033<br>545)<br>hypoth<br>etical<br>protein<br>(fragm<br>ent)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166285 | ATU028<br>225 | ATL8C4<br>4368:3<br>92..1  | nap | ATL8C4<br>4368:2<br>35..17<br>4  | ATL8C4<br>4368:2<br>35..17<br>4  | 0.54 | g31525<br>78 | 69 | 338  | 7.6e-<br>32  | (AC002<br>986)<br>YUP8H1<br>2R.10<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 166286 | ATU028<br>226 | ATL8C4<br>6241:1           | nap | ATL8C4<br>6241:9                 | ATL8C4<br>6241:9                 | 0.53 | g15185<br>40 | 69 | 1399 | 3.9e-<br>142 | (U5341<br>8)   |



|        |               |                                 |     |  |  |  |                                 |      |  |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|--|--------------|----|------|--------------|---|
| 166287 | ATU028<br>227 | ..998                           |     |  |  |  | 2..894                          | 0.52 |  | g16535<br>91 | 69 | 198  | 1.2e-<br>05  | UDP-<br>glucose<br>dehydrogenase<br>[Glycine<br>max]<br>(D90914)<br>hypothetical<br>protein<br>[Synecchocystis<br>sp.]                              |
| 166288 | ATU028<br>228 | ATL8S1<br>1943:5<br>74..1       | nap |  |  |  | ATL8S1<br>1943:5<br>74..10<br>6 | 0.51 |  | g43097<br>67 | 69 | 2287 | 1.8e-<br>213 | (AC006217)<br>putative<br>Athila<br>retroelement<br>ORF1<br>protein<br>[Arabidopsis<br>thaliana]<br>(AF013293)<br>No<br>definition<br>line<br>found |
| 166289 | ATU028<br>229 | ATL8C2<br>7673:4<br>58..92<br>7 | nap |  |  |  | ATL8C2<br>7673:4<br>97..91<br>9 | 0.50 |  | g22528<br>28 | 69 | 271  |              |   |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |  |                               |        |  |             |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--|-------------------------------|--------|--|-------------|-----------------------------|---|
| 166290 | ATU028<br>230 | ATL8C1<br>6359:3<br>201..9<br>05 | nap |  |  |  |  |  |  | ATL8C1<br>6359:3<br>037..9<br>05 | 0.48 |  | g49144<br>10                  | 69     |  | 792         | 8.9e-<br>51                 | [Arabi<br>dopsis<br>thalia<br>nal]<br>(AL050<br>352)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166291 | ATU028<br>231 | ATL8C4<br>7627:1<br>03..47<br>39 | nap |  |  |  |  |  |  | ATL8C4<br>7627:1<br>03..47<br>33 | 0.46 |  | g42063<br>06                  | 69     |  | 1516        | 4.3e-<br>152                | (AF049<br>110)<br>prpol<br>[Zea<br>mays]  |
| 166292 | ATU028<br>232 | ATL8C1<br>3641:1<br>669..7<br>14 | nap |  |  |  |  |  |  | ATL8C1<br>3641:1<br>667..7<br>96 | 0.42 |  | g62966<br>9                   | 69     |  | 638         | 2.1e-<br>70                 | hypoth<br>etical<br>protei<br>n -<br>tomato<br>[]   |
| 166293 | ATU028<br>233 | ATL8C4<br>2027:3<br>137..2<br>01 | nap |  |  |  |  |  |  | ATL8C4<br>2027:2<br>963..2<br>01 | 0.40 |  | g47339<br>86                  | 69     |  | 2196        | 1.6e-<br>155                | (AC007<br>209)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 166294 | ATU028<br>234 | ATL8C4<br>5703:1<br>082..1       | nap |  |  |  |  |  |  |                                  |      |  | g28326<br>78,<br>g22447<br>52 | 69, 58 |  | 308,<br>173 | 3.2e-<br>37,<br>2.7e-<br>20 | (AL021<br>712)<br>putati<br>ve<br>protei  |



|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |        |      |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|--------|------|-------------|--|
| 166298 | ATU028<br>238 | ATL8S5<br>407:71<br>0..119      | nap |  |  |  |  |  |  |  |  |  | g22752<br>14 | 69     | 216  | 6.7e-<br>21 | (AC002<br>337)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166299 | ATU028<br>239 | ATL8C1<br>1350:3<br>34..64<br>2 | nap |  |  |  |  |  |  |  |  |  | g47339<br>99 | 69     | 101  | 3.4e-<br>08 | (AC007<br>187)<br>hypo-<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166300 | ATU028<br>240 | ATL8S1<br>6154:1<br>..497       | nap |  |  |  |  |  |  |  |  |  | g30891<br>77 | 69     | 312  | 1.4e-<br>29 | (AF060<br>080)<br>hypo-<br>thetical<br>protein<br>[Chlor<br>obium<br>tepidu<br>m]    |
| 166301 | ATU028        | ATL8C1                          | nap |  |  |  |  |  |  |  |  |  | g32490       | 69, 44 | 259, | 4.0e-       | (AC004)  |

|        |               |                                  |     |  |  |  |  |  |  |                     |    |                    |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|---------------------|----|--------------------|--|
|        | 241           | 868:98<br>9..1                   |     |  |  |  |  |  |  | 67,<br>g46894<br>79 | 85 | 15,<br>4.5e-<br>06 | 473)<br>T13D8.<br>7<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC007<br>213)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166302 | ATU028<br>242 | ATL8S2<br>3678:3<br>39..1        | nap |  |  |  |  |  |  | g30634<br>62        | 69 | 0.0002<br>5        | (AC003<br>981)<br>F22O13<br>.24<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166303 | ATU028<br>243 | ATL8C2<br>4392:3<br>05..12<br>87 | nap |  |  |  |  |  |  | g23927<br>63        | 69 | 1.7e-<br>26        | (AC002<br>534)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166304 | ATU028<br>244 | ATL8C4<br>5454:1<br>111..1       | nap |  |  |  |  |  |  | g45862<br>58        | 69 | 4.2e-<br>145       | (AL049<br>640)*<br>putati<br>ve<br>protei  |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 166305 | ATU028<br>245 | ATL8C1<br>673:21<br>23..1         | nap |  |  |  |  |  |  |  | g33778<br>16 | 69 | 641 | 1.6e-<br>59 | n [Arabi<br>dopsis<br>thalia<br>na]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166306 | ATU028<br>246 | ATL8C4<br>5661:1<br>252..1<br>996 | nap |  |  |  |  |  |  |  | g39257<br>03 | 69 | 566 | 5.0e-<br>60 | (X9590<br>5) 14-<br>3-3<br>protei<br>n<br>[Lycop<br>ersico<br>n<br>escule<br>ntum]  |
| 166307 | ATU028<br>247 | ATL8C3<br>7006:3<br>54..1         | nap |  |  |  |  |  |  |  | g36872<br>22 | 69 | 199 |             | (AC005<br>169)<br>hypoth<br>etical  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |              |     |    |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|-----|----|-------------|--|
| 166308 | ATU028<br>248 | ATL8C1<br>4825:5<br>883..8<br>642 | nap |  |  |  |  |  |  |  |  | g47739<br>10 | 69  | 69 | 0.034       | prote<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166309 | ATU028<br>249 | ATL8S2<br>2606:4<br>99..1         | nap |  |  |  |  |  |  |  |  | g16538<br>86 | 175 | 69 | 1.3e-<br>14 | (D9091<br>7) DNR<br>[Synec<br>hocyst<br>is<br>sp.]                                       |
| 166310 | ATU028<br>250 | ATL8C7<br>011:1.<br>.1021         | nap |  |  |  |  |  |  |  |  | g13701<br>44 | 435 | 69 | 9.7e-<br>45 | (Z7395<br>0)<br>RAB11B<br>[Lotus<br>japoni<br>cus]                                       |
| 166311 | ATU028<br>251 | ATL8C8<br>642:1.<br>.535          | nap |  |  |  |  |  |  |  |  | g10742<br>2  | 66  | 69 | 0.80        | prolin<br>e-rich<br>protei<br>n<br>PRB3S<br>(cys)<br>-<br>human<br>(fragm<br>ent)<br>[ ] |

|        |               |                            |     |  |  |  |  |  |  |              |    |      |             |   |
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| 166312 | ATU028<br>252 | ATL8C3<br>7403:6<br>31..1  | nap |  |  |  |  |  |  | g48951<br>64 | 69 | 792  |             | (AC007<br>231)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166313 | ATU028<br>253 | ATL8C3<br>3180:2<br>834..1 | nap |  |  |  |  |  |  | g36953<br>93 | 69 | 3982 | 0.0         | (AF096<br>371)<br>contai<br>ns<br>simila<br>rity<br>to<br>retrov<br>iral<br>aspart<br>yl<br>protea<br>ses<br>(Pfam:<br>rvp.hm<br>m,<br>score:<br>11.80)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166314 | ATU028<br>254 | ATL8S5<br>436:46<br>5..1   | nap |  |  |  |  |  |  | g32876<br>90 | 69 | 211  | 6.2e-<br>11 | (AC003<br>979)<br>T22J18<br>.15   |



|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 166315 | ATU028<br>255 | ATL8C1<br>3546:7<br>104..1       | nap |  |  |  |  |  |  |  |  | g42638<br>31 | 69 | 3474 | 0.0          | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166316 | ATU028<br>256 | ATL8C2<br>9264:1<br>597..2<br>16 | nap |  |  |  |  |  |  |  |  | g38596<br>00 | 69 | 1878 | 1.5e-<br>176 | (AF104<br>919)<br>T15B16<br>.6<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166317 | ATU028<br>257 | ATL8C1<br>9861:7<br>53..1        | nap |  |  |  |  |  |  |  |  | g45824<br>55 | 69 | 216  | 8.2e-<br>22  | (AC007<br>071)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |



|        |               |                           |     |  |  |  |  |  |  |              |    |     |             |  |                                    |
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| 166323 | ATU028<br>263 | ATL8S1<br>7291:1<br>..535 | nap |  |  |  |  |  |  | g26212<br>58 | 69 | 394 | 8.3e-<br>37 | (AE000<br>808).<br>exodeo<br>xyribo<br>nuclea<br>se<br>[Metha<br>nobact<br>erium<br>thermo<br>autotr<br>ophicu<br>m] | [Arabi<br>dopsis<br>thalia<br>nal] |
| 166324 | ATU028<br>264 | ATL8S2<br>0670:4<br>13..1 | nap |  |  |  |  |  |  | g32616<br>61 | 68 | 323 | 2.5e-<br>32 | (Z8136<br>8)<br>hypoth<br>etical<br>protei<br>n<br>Rv2421<br>c<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]    |                                    |
| 166325 | ATU028<br>265 | ATL8S9<br>205:79<br>3..1  | nap |  |  |  |  |  |  | g38222<br>25 | 68 | 364 | 1.0e-<br>36 | (AF079<br>183)<br>RING-<br>H2<br>finger<br>protei<br>n<br>RHG1a  | [Arabi                             |

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|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|----------|--|
| 166326 | ATU028<br>266 | ATL8C4<br>7586:2<br>58..12<br>12 | nap |  |  |  | ATL8C4<br>7586:2<br>94..93<br>6  | 0.98 | g43253<br>72 | 68 | 487  | 1.7e-53  | (AF128 396) contai ns simila rity to protei n disulf ide, isomer ases [Arabi dopsis thalia na] |
| 166327 | ATU028<br>267 | ATL8C1<br>4630:1<br>322..6<br>76 | nap |  |  |  | ATL8C1<br>4630:1<br>273..6<br>93 | 0.98 | g32928<br>15 | 68 | 191  | 1.0e-09  | (AL031 018) hypoth etical protei n [Arabi dopsis thalia na]                                    |
| 166328 | ATU028<br>268 | ATL8C2<br>5432:1<br>015..2<br>56 | nap |  |  |  | ATL8C2<br>5432:8<br>96..25<br>6  | 0.97 | g44540<br>09 | 68 | 1172 | 1.1e-110 | (AL035 396) putati ve protei n [Arabi dopsis thalia na]  |

|        |               |                                  |     |  |  |  |                                  |      |                               |        |             |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|---|
| 166329 | ATU028<br>269 | ATL8C1<br>6673:1<br>..2328       | nap |  |  |  | ATL8C1<br>6673:6<br>1..966       | 0.96 | g47739<br>18                  | 68     | 1437        | 2.6e-<br>123                | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166330 | ATU028<br>270 | ATL8C3<br>1467:1<br>253..4<br>66 | nap |  |  |  | ATL8C3<br>1467:1<br>131..4<br>72 | 0.96 | g46783<br>02,<br>g45394<br>31 | 68, 52 | 186,<br>201 | 1.0e-<br>17,<br>4.5e-<br>20 | (AL049<br>655)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AL049<br>171)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166331 | ATU028<br>271 | ATL8C3<br>4170:1<br>..1426       | nap |  |  |  | ATL8C3<br>4170:1<br>26..14<br>26 | 0.94 | g33778<br>40,<br>g15185<br>40 | 68, 39 | 395,<br>711 | 5.0e-<br>38,<br>7.9e-<br>75 | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to E.<br>coli<br>nitrog   |

166332  
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|--------|---------------|-----|---------------------------|------|--------------|----|-----|-------------|--|
| 166332 | ATU028<br>272 | nap | ATL8C2<br>3662:4<br>28..1 | 0.94 | g28326<br>48 | 68 | 351 | 6.3e-<br>34 | (AL021<br>710)<br>membra<br>ne-<br>bound<br>small<br>GTP-<br>bindin<br>g -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
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| 166333 | ATU028<br>273 | ATL8C4<br>3369:1<br>050..1<br>876 | nap |  |  | ATL8C4<br>3369:1<br>050..1<br>862 | 0.91 | 934260<br>40 | 68 | 490  | (AC005<br>168)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 166334 | ATU028<br>274 | ATL8C1<br>668:22<br>00..49<br>7   | nap |  |  | ATL8C1<br>668:17<br>27..50<br>6   | 0.91 | 930471<br>04 | 68 | 1018 | (AF058<br>919)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 166335 | ATU028<br>275 | ATL8C1<br>1857:2<br>3..940        | nap |  |  | ATL8C1<br>1857:2<br>3..821        | 0.90 | 944552<br>12 | 68 | 1119 | (AL035<br>440)<br>putati<br>ve<br>NPK1-<br>relate<br>d<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166336 | ATU028<br>276 | ATL8C3<br>7496:4<br>102..1        | nap |  |  | ATL8C3<br>7496:4<br>102..2<br>05  | 0.89 | 928646<br>25 | 68 | 2464 | (AL021<br>811)<br>putati<br>ve<br>protei   |

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| 166337 | ATU028<br>277 | ATL8S4<br>790:48<br>0..1   | nap |  |  |  |  |  | ATL8S4<br>790:48<br>0..81  | 0.88 | g28223<br>33 | 68 | 211  | 1.9e-<br>09  | (AF016<br>485)<br>trxB<br>[Halob<br>acteri<br>um sp.<br>NRC-1]  | n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166338 | ATU028<br>278 | ATL8S1<br>3045:1<br>..460  | nap |  |  |  |  |  | ATL8S1<br>3045:5<br>5..443 | 0.87 | g30251<br>93 | 68 | 229  | 1.1e-<br>20  | HYPOTH<br>ETICAL<br>PROTEI<br>N IN<br>H2-<br>DEPEND<br>ENT<br>RESPIR<br>ATION<br>REGION<br>(ORF1)<br>[Azoto<br>bacter<br>chrooc<br>occum] |  |
| 166339 | ATU028<br>279 | ATL8S2<br>8192:4<br>83..1  | nap |  |  |  |  |  | ATL8S2<br>8192:4<br>74..28 | 0.87 | g16527<br>15 | 68 | 182  | 2.6e-<br>11  | (D9090<br>7)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]   |  |
| 166340 | ATU028<br>280 | ATL8C6<br>54:100<br>..2141 | nap |  |  |  |  |  | ATL8C6<br>54:368<br>..2093 | 0.86 | g32427<br>11 | 68 | 1794 | 3.5e-<br>143 | (AC003<br>040)<br>hypoth  |  |



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| 166341 | ATU028<br>281 | ATL8C2<br>2650:1<br>..1180        | nap |  |  |  | ATL8C2<br>2650:1<br>71..56<br>4   | 0.86 | g43099<br>69 | 68 | 467 | 4.5e-<br>49 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166342 | ATU028<br>282 | ATL8C2<br>6935:1<br>252..2<br>914 | nap |  |  |  | ATL8C2<br>6935:1<br>273..2<br>914 | 0.85 | g17234<br>90 | 68 | 182 | 5.3e-<br>13 | HYPOTH<br>ETICAL<br>32.6<br>KD<br>PROTEI<br>N<br>C1F3.0<br>4C IN<br>CHROMO<br>SOME I<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe] |
| 166343 | ATU028<br>283 | ATL8C1<br>1757:1<br>..1576        | nap |  |  |  | ATL8C1<br>1757:4<br>..1576        | 0.85 | g48263<br>99 | 68 | 901 | 1.6e-<br>81 | (AJ012<br>423)<br>wall-  |

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| 166344 | ATU028<br>284 | ATL8C9<br>706:30<br>04..67<br>8 | nap |  |  |  |  |  | ATL8C9<br>706:25<br>76..67<br>8 | 0.85 | g24659<br>25 | 68 | 882 | 9.1e-<br>76 | associ<br>ated<br>kinase<br>2<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166345 | ATU028<br>285 | ATL8S3<br>0710:1<br>..490       | nap |  |  |  |  |  | ATL8S3<br>0710:1<br>76..34<br>3 | 0.84 | g17106<br>19 | 68 | 336 | 1.6e-<br>25 | RIBONU<br>CLEASE<br>PH<br>(RNASE<br>PH)<br>(TRNA<br>NUCLEO<br>TIDYLT<br>RANSFE<br>RASE)<br>[Pseud<br>omonas<br>aerugi<br>nos] |
| 166346 | ATU028<br>286 | ATL8C1<br>1144:6<br>94..1       | nap |  |  |  |  |  | ATL8C1<br>1144:5<br>90..11<br>0 | 0.83 | g42042<br>62 | 68 | 554 | 2.3e-<br>39 | (AC005<br>223)<br>37783<br>[Arabi<br>dopsis   |

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| 166347 | ATU028<br>287 | ATL8C1<br>9193:2<br>505..1       | nap |  |  |  | ATL8C1<br>9193:1<br>928..3<br>3  | 0.83 | g36500<br>38 | 68 | 1964 | 2.2e-<br>164 | thalia<br>na]<br>(AC005<br>396)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 166348 | ATU028<br>288 | ATL8C4<br>5289:1<br>997..8<br>45 | nap |  |  |  | ATL8C4<br>5289:1<br>923..8<br>45 | 0.82 | g26424<br>41 | 68 | 1676 | 1.0e-<br>162 | (AC002<br>391)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 166349 | ATU028<br>289 | ATL8C2<br>2784:1<br>240..7<br>6  | nap |  |  |  | ATL8C2<br>2784:1<br>057..8<br>2  | 0.82 | g30045<br>64 | 68 | 548  | 3.6e-<br>56  | (AC003<br>673)<br>putati<br>ve<br>recept<br>or<br>Ser/Th<br>r<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166350 | ATU028<br>290 | ATL8C6<br>55:386                 | nap |  |  |  | ATL8C6<br>55:386                 | 0.82 | g42638<br>31 | 68 | 3583 | 2.0e-<br>299 | (AC006<br>067)  |



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|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 166354 | ATU028<br>294 | ATL8C7<br>035:1.<br>.1322  | nap |  |  |  |  | ATL8C7<br>035:47<br>3..121<br>8 | 0.80 | g24979<br>77 | 68 | 196 | 2.2e-<br>13 | muscul<br>us]<br>HYPOTH<br>ETICAL<br>30.2<br>KD<br>PROTEI<br>N IN<br>CAPB<br>3'REGI<br>ON<br>[Pseud<br>omonas<br>fragil]         |
| 166355 | ATU028<br>295 | ATL8S1<br>3664:4<br>70..53 | nap |  |  |  |  | ATL8S1<br>3664:4<br>54..53      | 0.80 | g11732<br>93 | 68 | 238 | 4.3e-<br>19 | FERRIT<br>IN<br>LIKE<br>PROTEI<br>N 1<br>[Haemo<br>philus<br>influe<br>ntiae<br>Rd]  |
| 166356 | ATU028<br>296 | ATL8C5<br>208:22<br>28..1  | nap |  |  |  |  | ATL8C5<br>208:21<br>89..97      | 0.79 | g39156<br>76 | 68 | 245 | 3.9e-<br>18 | DNA<br>POLYME<br>RASE<br>EPSILO<br>N<br>SUBUNI<br>T B<br>(DNA<br>POLYME<br>RASE<br>II<br>SUBUNI<br>T B)<br>[Homo<br>sapien<br>s] |

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| 166357 | ATU028<br>297 | ATL8C4<br>6028:1<br>383..1      | nap |  |  |  | ATL8C4<br>6028:1<br>383..1<br>94                                      | 0.77          | g24987<br>32 | 68 | 1035 | 1.8e-<br>143 | PROBAB<br>LE<br>NADP-<br>DEPEND<br>ENT<br>OXIDOR<br>EDUCTA<br>SE P2<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166358 | ATU028<br>298 | ATL8C3<br>5361:6<br>1..312<br>8 | nap |  |  |  | ATL8C3<br>5361:6<br>1..312<br>0                                       | 0.76          | g12559<br>51 | 68 | 1257 | 1.1e-<br>124 | (X9693<br>2)<br>PS60<br>[Nicot<br>iana<br>tabacu<br>m]   |
| 166359 | ATU028<br>299 | ATL8C1<br>8732:4<br>8..296<br>9 | nap |  |  |  | ATL8C1<br>8732:4<br>8..165<br>0,<br>ATL8C1<br>8732:2<br>817..1<br>935 | 0.74,<br>0.47 | g42638<br>30 | 68 | 1253 | 5.7e-<br>122 | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 166360 | ATU028<br>300 | ATL8S2<br>0227:7<br>32..1       | nap |  |  |  | ATL8S2<br>0227:7<br>18..18<br>3                                       | 0.72          | g21902<br>63 | 68 | 499  | 1.3e-<br>50  | (D8638<br>7) A-<br>type<br>cyclin<br>[Catha<br>ranthu<br>s<br>roseus<br>]                                |
| 166361 | ATU028<br>301 | ATL8C1<br>1014:1                | nap |  |  |  | ATL8C1<br>1014:6  | 0.70          | g36953<br>95 | 68 | 935  | 5.6e-<br>80  | (AF096<br>372)   |

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| 166362 | ATU028<br>302 | ..3061                     |     |  |  |  | 73..24<br>76                     | 0.70 | g37575<br>16 | 68 | 1221 | 2.2e-<br>130 | contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>e<br>(Pfam:<br>PF0007<br>8 rvt,<br>E=4.3e<br>-08)<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               | ATL8C6<br>838:1.<br>.2885  | nap |  |  |  | ATL8C6<br>838:93<br>..2489       |      |              |    |      |              | (AC005<br>167)<br>putati<br>ve TMV<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166363 | ATU028<br>303 | ATL8C1<br>4919:1<br>..1184 | nap |  |  |  | ATL8C1<br>4919:2<br>64..10<br>98 | 0.69 | g43712<br>94 | 68 | 421  | 3.7e-<br>32  | (AC006<br>260)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |

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| 166364 | ATU028<br>304 | ATL8C2<br>2227:1<br>..1067 | nap |  |  |  | ATL8C2<br>2227:2<br>7..788      | 0.68 |  | g42621<br>62                                   | 68            | 499                   | 4.2e-<br>50                                   | na]<br>(AC005<br>275)<br>putati<br>ve<br>glycos<br>ylatio<br>n<br>enzyme<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166365 | ATU028<br>305 | ATL8C2<br>2162:1<br>866..1 | nap |  |  |  | ATL8C2<br>2162:1<br>866..7<br>0 | 0.68 |  | g29612<br>83                                   | 68            | 1338                  | 5.3e-<br>120                                  | (Y1684<br>8)<br>LG27/3<br>0<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166366 | ATU028<br>306 | ATL8C2<br>3759:1<br>..5212 | nap |  |  |  | ATL8C2<br>3759:5<br>7..498<br>3 | 0.68 |  | g40380<br>56,<br>g42637<br>66,<br>g46999<br>38 | 68,<br>64, 48 | 2239,<br>1366,<br>587 | 1.5e-<br>208,<br>1.2e-<br>124,<br>5.5e-<br>60 | (AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia |



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| 166367 | ATU028<br>307 | ATL8C2<br>2312:2<br>030..1      | nap |  |  |  |  |  | 0.68                             | g43253<br>48 | 68 | 188  | 5.2e-<br>10  | nal#<br>(AC007<br>166)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
|        |               |                                 |     |  |  |  |  |  | ATL8C2<br>2312:1<br>388..2<br>11 |              |    |      |              | (AF128<br>394)<br>contai<br>ns<br>simila<br>rity<br>to<br>phosph<br>ate<br>transp<br>orters<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166368 | ATU028<br>308 | ATL8C2<br>289:19<br>41..15<br>9 | nap |  |  |  |  |  | 0.68                             | g33778<br>16 | 68 | 1283 | 1.9e-<br>116 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son              |
|        |               |                                 |     |  |  |  |  |  | ATL8C2<br>289:12<br>69..50<br>4  |              |    |      |              |   |

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| 166369 | ATU028<br>309 | ATL8C2<br>1774:5<br>012..1        | nap |  |  |  |  |  | ATL8C2<br>1774:4<br>965..1<br>369 | 0.66 | g33193<br>60 | 68 | 2423 | 1.1e-<br>238 | Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166370 | ATU028<br>310 | ATL8C4<br>9324:4<br>992..2<br>931 | nap |  |  |  |  |  | ATL8C4<br>9324:4<br>929..3<br>009 | 0.66 | g33778<br>16 | 68 | 2691 | 8.7e-<br>227 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot   |

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| 166371 | ATU028<br>311 | ATL8C1<br>811:95<br>5..228      | nap |  |  |  |  |  | ATL8C1<br>811:76<br>2..228      | 0.64 | g42630<br>55 | 68 | 257  | 6.6e-<br>25  | ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>nal]         |
| 166372 | ATU028<br>312 | ATL8C8<br>807:65<br>8..199<br>3 | nap |  |  |  |  |  | ATL8C8<br>807:65<br>8..162<br>1 | 0.63 | g48369<br>01 | 68 | 821  | 1.7e-<br>86  | (AC007<br>369)<br>Unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]       |
| 166373 | ATU028<br>313 | ATL8C4<br>7870:1<br>..1997      | nap |  |  |  |  |  | ATL8C4<br>7870:5<br>3..190<br>9 | 0.61 | g33778<br>30 | 68 | 1481 | 1.5e-<br>146 | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Aplysi<br>a<br>califo<br>rnica |

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| 166374 | ATU028<br>314 | ATL8C2<br>2893:1<br>..772       | nap |  |  |  |  |  | ATL8C2<br>2893:2<br>39..73<br>8 | 0.61 | g38941<br>88 | 68 | 101 | 5.0e-<br>10 | intermediate filament protein A (GB:X60297) [Arabidopsis thaliana] |
| 166375 | ATU028<br>315 | ATL8C1<br>4473:1<br>..868       | nap |  |  |  |  |  | ATL8C1<br>4473:6<br>3..803      | 0.58 | g30048<br>82 | 68 | 373 | 2.9e-<br>29 | (AF030304) zinc finger protein; ATZF1 [Arabidopsis thaliana]       |
| 166376 | ATU028<br>316 | ATL8C2<br>6049:5<br>5..168<br>1 | nap |  |  |  |  |  | ATL8C2<br>6049:5<br>5..162<br>0 | 0.57 | g43887<br>23 | 68 | 632 | 7.4e-<br>57 | (AC006413) hypothetical protein [Arabidopsis thaliana]             |

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| 166377 | ATU028<br>317 | ATL8S2<br>0695:6<br>01..3         | nap |  |  |  |  |  | ATL8S2<br>0695:5<br>57..60        | 0.54 | g23377<br>96                  | 68     | 225           | 1.4e-<br>21                   | dopsis<br>thalia<br>na]<br>(Y1393<br>7)<br>YloC<br>protei<br>n<br>[Bacil<br>lus<br>subtil<br>is]   |
| 166378 | ATU028<br>318 | ATL8C3<br>9893:4<br>174..2<br>320 | nap |  |  |  |  |  | ATL8C3<br>9893:4<br>112..2<br>359 | 0.53 | g45672<br>98                  | 68     | 1896          | 1.0e-<br>194                  | (AC006<br>918)<br>putati<br>ve<br>MuDR<br>MURA<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 166379 | ATU028<br>319 | ATL8C1<br>7408:4<br>721..1        | nap |  |  |  |  |  | ATL8C1<br>7408:4<br>531..1<br>107 | 0.52 | g37460<br>69,<br>g37790<br>21 | 68, 33 | 2479,<br>1456 | 3.7e-<br>249,<br>3.3e-<br>142 | (AC005<br>311)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>171)<br>putati |

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|--------|---------------|----------------------------|-----|--|--|--|--|--|--|---------------------------------|------|--|-------------------------------|--------|--------------|------------------------------|---|
| 166380 | ATU028<br>320 | ATL8C9<br>308:19<br>61..1  | nap |  |  |  |  |  |  | ATL8C9<br>308:17<br>99..85<br>2 | 0.52 |  | g47739<br>20,<br>g21296<br>18 | 68, 46 | 1935,<br>495 | 7.3e-<br>180,<br>1.1e-<br>51 | ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166381 | ATU028<br>321 | ATL8C1<br>7004:3<br>055..1 | nap |  |  |  |  |  |  | ATL8C1<br>7004:2<br>929..2      | 0.51 |  | g39246<br>09                  | 68     | 3139         | 0.0                          | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na];<br>hypoth<br>etical<br>protei<br>n 1 -<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                            |     |  |  |  |  |  |  |                                 |      |  |                               |        |              |                              | (AF069<br>442)<br>putati  |

|        |               |                            |     |  |  |  |  |  |  |    |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|----|----------------------------------|------|--------------|----|------|--------------|--|
| 166382 | ATU028<br>322 | ATL8S7<br>470:99<br>..524  | nap |  |  |  |  |  |  | 17 | ATL8S7<br>470:27<br>5..448       | 0.51 | g14033<br>8  | 68 | 480  | 9.7e-<br>41  | ve<br>polypr<br>otein<br>of LTR<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 166383 | ATU028<br>323 | ATL8C2<br>3345:1<br>984..1 | nap |  |  |  |  |  |  |    | ATL8C2<br>3345:1<br>923..1<br>29 | 0.50 | g47739<br>08 | 68 | 1642 | 1.5e-<br>151 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166384 | ATU028<br>324 | ATL8S6<br>693:1.<br>.581   | nap |  |  |  |  |  |  |    | ATL8S6<br>693:16<br>8..395       | 0.49 | g28030<br>1  | 68 | 432  |              | beta-<br>hydrox<br>ybutyr<br>yl-CoA<br>dehydr  |

|        |               |                                 |     |  |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 166385 | ATU028<br>325 | ATL8C1<br>9937:2<br>32..90<br>7 | nap |  |  |  |  |  | ATL8C1<br>9937:2<br>81..86<br>6 | 0.48 | g30592<br>51 | 68 | 175 | 2.4e-<br>19 | (AB010<br>432)<br>HAPE<br>[Asper<br>gillus<br>oryzae<br>]                              |
| 166386 | ATU028<br>326 | ATL8S2<br>2765:4<br>71..1       | nap |  |  |  |  |  | ATL8S2<br>2765:4<br>71..93      | 0.48 | g11755<br>67 | 68 | 417 | 2.7e-<br>38 | HYPOTH<br>ETICAL<br>PROTEI<br>N<br>HI0374<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd] |
| 166387 | ATU028<br>327 | ATL8S2<br>3135:4<br>77..1       | nap |  |  |  |  |  | ATL8S2<br>3135:4<br>14..16      | 0.47 | g17067<br>56 | 68 | 153 | 7.2e-<br>16 | 3-<br>OXOACY<br>L-<br>[Vibri<br>o  |



|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 166388 | ATU028<br>328 | ATL8C3<br>0419:5<br>2..202<br>2   | nap |  |  |  |  | ATL8C3<br>0419:5<br>2..133<br>7   | 0.47 | g47739<br>20 | 68 | 2024 | 2.8e-<br>182 | harvey<br>ij<br>(AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166389 | ATU028<br>329 | ATL8C4<br>8514:5<br>184..6<br>794 | nap |  |  |  |  | ATL8C4<br>8514:5<br>184..6<br>751 | 0.46 | g32427<br>13 | 68 | 2544 | 5.7e-<br>223 | (AC003<br>040)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 166390 | ATU028<br>330 | ATL8C9<br>651:12<br>42..1         | nap |  |  |  |  | ATL8C9<br>651:11<br>63..20<br>7   | 0.46 | g34200<br>50 | 68 | 684  | 7.0e-<br>67  | (AC004<br>680)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 166391 | ATU028<br>331 | ATL8C4<br>1378:5<br>93..26<br>02  | nap |  |  |  |  | ATL8C4<br>1378:5<br>93..25<br>49  | 0.44 | g40380<br>56 | 68 | 2289 | 4.4e-<br>224 | (AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>[Arabi   |

|        |               |                                   |     |  |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 166392 | ATU028<br>332 | ATL8C2<br>31:243<br>0..1          | nap |  |  |  |  |  | ATL8C2<br>31:184<br>8..820       | 0.42 | g40380<br>56 | 68 | 2100 | 1.9e-<br>195 | dopsis<br>thalia<br>na]<br>(AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166393 | ATU028<br>333 | ATL8C3<br>9457:1<br>394..1        | nap |  |  |  |  |  | ATL8C3<br>9457:1<br>295..1<br>10 | 0.40 | g30333<br>92 | 68 | 1667 | 9.3e-<br>146 | (AC004<br>238)<br>putati<br>ve<br>transl<br>ation<br>initia<br>tion<br>factor<br>EIF-<br>2B-<br>epsilo<br>n<br>subuni<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166394 | ATU028<br>334 | ATL8C2<br>0301:1<br>329..1<br>995 | nap |  |  |  |  |  |                                  |      | g13512<br>22 | 68 | 337  | 3.0e-<br>35  | TRANSC<br>RIPTIO<br>N<br>INITIA<br>TION<br>FACTOR<br>IIB<br>(TFIIB  |



|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|---|
| 166399 | ATU028<br>339 | ATL8C2<br>0440:1<br>..186         | nap |  |  |  |  |  |  |  |  |  | g28275<br>57 | 68 | 247  | 1.2e-<br>21  | (AL021<br>635)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 166400 | ATU028<br>340 | ATL8C4<br>3919:9<br>68..13<br>11  | nap |  |  |  |  |  |  |  |  |  | g47340<br>12 | 68 | 212  | 2.4e-<br>18  | (AC007<br>112)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 166401 | ATU028<br>341 | ATL8C3<br>9612:6<br>116..2<br>170 | nap |  |  |  |  |  |  |  |  |  | g44173<br>09 | 68 | 2174 | 4.3e-<br>212 | (AC006<br>446)<br>putati<br>ve pol<br>ypr<br>otei<br>with a<br>revers<br>e<br>transc<br>riptas<br>e |



|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|-------------|--|
| 166404 | ATU028<br>344 | ATL8C3<br>7086:1<br>28..87<br>2  | nap |  |  |  |  |  |  |  |  |  | g38602<br>46 | 68 | 236  |             | thalia<br>na]<br>(AC005<br>824)<br>putati<br>ve<br>revers<br>e-<br>transc<br>riptas<br>e<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166405 | ATU028<br>345 | ATL8C8<br>866:66<br>2..1         | nap |  |  |  |  |  |  |  |  |  | g42180<br>04 | 68 | 536  | 9.8e-<br>44 | (AC006<br>135)<br>putati<br>ve<br>homeod<br>omain<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166406 | ATU028<br>346 | ATL8C4<br>5438:9<br>00..18<br>50 | nap |  |  |  |  |  |  |  |  |  | g36953<br>97 | 68 | 1149 | 1.5e-<br>94 | (AF096<br>372)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |

|        |               |                                   |     |  |  |  |  |                           |      |  |  |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|---------------------------|------|--|--|--------------|----|-----|-------------|---|
| 166407 | ATU028<br>347 | ATL8C3<br>9102:1<br>169..1<br>72  | nap |  |  |  |  |                           |      |  |  | g44544<br>77 | 68 | 230 | 7.3e-<br>26 | (AC006<br>234)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 166408 | ATU028<br>348 | ATL8S8<br>267:1.<br>.534          | nap |  |  |  |  |                           |      |  |  | g34150<br>13 | 68 | 374 | 4.8e-<br>34 | (AF080<br>548)<br>3-<br>hydrox<br>ybutyr<br>ate<br>dehydr<br>ogenas<br>e<br>[Sinor<br>hizobi<br>um<br>melilo<br>ti] |
| 166409 | ATU028<br>349 | ATL8S2<br>5576:4<br>93..1         | nap |  |  |  |  | ATL8S2<br>5576:4<br>75..9 | 1.00 |  |  | g38113<br>10 | 67 | 261 | 5.3e-<br>22 | (AF047<br>974)<br>unknow<br>n<br>[Vibri<br>o<br>choler<br>ae]   |
| 166410 | ATU028<br>350 | ATL8C4<br>7161:1<br>591..3<br>754 | nap |  |  |  |  |                           |      |  |  | g33675<br>26 | 68 | 266 | 1.2e-<br>29 | (AC004<br>392)<br>Strong<br>simila<br>rity<br>to<br>[Arabi<br>dopsis]   |





|        |               |                                   |     |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 166415 | ATU028<br>355 | ATL8C1<br>1400:5<br>90..14<br>63  | nap |  |  |  |  |  |  | g45879<br>97 | 68 | 474  | 1.5e-<br>48  | (AF085<br>279)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166416 | ATU028<br>356 | ATL8C2<br>8877:1<br>953..1<br>083 | nap |  |  |  |  |  |  | g37860<br>13 | 68 | 546  | 5.2e-<br>53  | (AC005<br>499)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166417 | ATU028<br>357 | ATL8C4<br>5470:3<br>141..3<br>551 | nap |  |  |  |  |  |  | g23427<br>25 | 68 | 510  | 2.9e-<br>41  | (AC002<br>341)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166418 | ATU028<br>358 | ATL8C1<br>1332:2<br>943..8<br>46  | nap |  |  |  |  |  |  | g42635<br>43 | 68 | 1895 | 4.6e-<br>184 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retroel<br>ement<br>ORF1<br>protei<br>n    |





|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 166426 | ATU028<br>366 | ATL8C3<br>8769:8<br>69..46<br>7 | nap |  |  |  |  |  |  |  |  |  | g36680<br>85 | 68 | 286  | 2.3e-<br>21  | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC004<br>667)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166427 | ATU028<br>367 | ATL8S5<br>913:19<br>3..499      | nap |  |  |  |  |  |  |  |  |  | g29842<br>67 | 68 | 198  | 6.8e-<br>13  | (AE000<br>769)<br>riboso<br>mal<br>protei<br>n L09<br>[Aquif<br>ex<br>aeolic<br>us]  |
| 166428 | ATU028<br>368 | ATL8C3<br>7724:1<br>446..1      | nap |  |  |  |  |  |  |  |  |  | g39246<br>12 | 67 | 1256 | 4.5e-<br>144 | (AF069<br>442)<br>mitoch<br>ondria<br>l<br>elonga<br>tion<br>factor<br>Tu<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 166429 | ATU028<br>369 | ATL8C3<br>7155:5                | nap |  |  |  |  |  |  |  |  |  | g45196<br>71 | 67 | 243  |              | (AB017<br>693)   |

|        |               |                            |     |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 166430 | ATU028<br>370 | 285..4<br>331              | nap |  |  |  | 139..4<br>419                    | 0.95 | g35102<br>62 | 67 | 575 | 2.7e-<br>66 | transf<br>actor<br>[Nicot<br>iana<br>tabacu<br>m]<br>(AC005<br>310)<br>NAM<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166431 | ATU028<br>371 | ATL8C1<br>9901:1<br>641..1 | nap |  |  |  | ATL8C1<br>9901:1<br>453..1<br>28 | 0.95 | g45444<br>46 | 67 | 690 | 1.7e-<br>60 | (AC006<br>592)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166432 | ATU028<br>372 | ATL8S1<br>875:19<br>9..518 | nap |  |  |  | ATL8S1<br>875:19<br>9..438       | 0.95 | g25982<br>23 | 67 | 340 | 1.2e-<br>30 | (Y0869<br>6)<br>aldehy<br>de<br>dehydr<br>ogenas<br>e<br>subuni<br>t III<br>[Aceto<br>bacter<br>europa<br>eus]                         |
| 166433 | ATU028        | ATL8S1                     | nap |  |  |  | ATL8S1                           | 0.95 | g16518       | 67 | 252 | 1.0e-       | (D9090   |

|        |               |                            |     |  |  |  |  |                                 |    |      |              |              |  |  |  |    |  |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|----|------|--------------|--------------|--|--|--|----|--|
|        | 373           | 3716:1<br>12..57<br>2      |     |  |  |  |  | 3716:1<br>54..41<br>7           |    | 0.94 |              | 72           |  |  |  | 16 | 0)<br>spore<br>matura<br>tion<br>protei<br>n B<br>[Synec<br>hocyst<br>is<br>sp.]                               |
| 166434 | ATU028<br>374 | ATL8C2<br>0725:1<br>101..1 | nap |  |  |  |  | ATL8C2<br>0725:1<br>098..6<br>9 | 67 | 1549 | 4.9e-<br>146 | g38105<br>93 |  |  |  |    | (AC005<br>398)<br>putati<br>ve<br>sucros<br>e-<br>proton<br>sympor<br>ter<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166435 | ATU028<br>375 | ATL8C4<br>9363:1<br>546..1 | nap |  |  |  |  | ATL8C4<br>9363:1<br>477..3<br>4 | 67 | 669  | 4.0e-<br>49  | g45444<br>38 |  |  |  |    | (AC006<br>592)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 166436 | ATU028<br>376 | ATL8C1<br>2370:1<br>519..1 | nap |  |  |  |  | ATL8C1<br>2370:1<br>519..5<br>5 | 67 | 729  | 1.4e-<br>79  | g30471<br>14 |  |  |  |    | (AF058<br>919)<br>No<br>defini<br>tion<br>line<br>found  |



|        |               |                            |     |  |  |  |  |  |                                   |      |  |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|-----------------------------------|------|--|--------------|----|------|--------------|---|
| 166441 | ATU028<br>381 | ATL8C1<br>3967:7<br>47..1  | nap |  |  |  |  |  | ATL8C1<br>3967:4<br>83..40<br>4   | 0.88 |  | g35229<br>52 | 67 | 750  | 2.9e-<br>67  | (AC004<br>411)<br>putati<br>ve<br>alcohol<br>dehydr<br>ogenase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166442 | ATU028<br>382 | ATL8C4<br>9776:2<br>955..1 | nap |  |  |  |  |  | ATL8C4<br>9776:2<br>901..2<br>05  | 0.88 |  | g44552<br>40 | 67 | 1603 | 6.3e-<br>143 | (AL035<br>523)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 166443 | ATU028<br>383 | ATL8C3<br>0505:1<br>..2865 | nap |  |  |  |  |  | ATL8C3<br>0505:1<br>142..2<br>853 | 0.87 |  | g29613<br>52 | 67 | 369  | 3.6e-<br>19  | (AL022<br>140)<br>putati<br>ve<br>protei<br>n<br>[Arabi   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |  |                         |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|-------------------------|
| 166444 | ATU028<br>384 | ATL8C4<br>8766:1<br>..1121       | nap |  |  |  |  | ATL8C4<br>8766:6<br>9..112<br>1  | 0.86 | g58486<br>5  | 67 | 722 | 2.6e-<br>79 | CYTOCH<br>ROME<br>P450<br>76A2<br>(CYPLX<br>XVIA2)<br>(P-<br>450EG7<br>)<br>[Solan<br>um<br>melong<br>ena] | dopsis<br>thalia<br>na] |
| 166445 | ATU028<br>385 | ATL8C4<br>3856:1<br>054..2<br>41 | nap |  |  |  |  | ATL8C4<br>3856:9<br>19..31<br>2  | 0.85 | g31767<br>24 | 67 | 682 | 2.5e-<br>73 | (AC002<br>392)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |                         |
| 166446 | ATU028<br>386 | ATL8C3<br>2948:2<br>54..12<br>01 | nap |  |  |  |  | ATL8C3<br>2948:2<br>54..12<br>01 | 0.85 | g33193<br>49 | 67 | 200 | 8.6e-<br>20 | (AF077<br>407)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]               |                         |
| 166447 | ATU028<br>387 | ATL8C2<br>9692:6<br>33..1        | nap |  |  |  |  | ATL8C2<br>9692:4<br>35..18       | 0.84 | g47739<br>11 | 67 | 394 | 4.0e-<br>33 | (AF147<br>259)<br>No   |                         |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 166448 | ATU028<br>388 | ATL8C3<br>3423:4<br>97..25<br>25  | nap |  |  |  |  | ATL8C3<br>3423:4<br>97..24<br>57  | 0.84 | g42621<br>59 | 67 | 1598 | 2.1e-<br>117 | (AC005<br>275)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 166449 | ATU028<br>389 | ATL8C4<br>8542:6<br>117..9<br>027 | nap |  |  |  |  | ATL8C4<br>8542:6<br>117..8<br>908 | 0.84 | g27358<br>41 | 67 | 868  | 6.6e-<br>77  | (AF010<br>283)<br>No<br>defini<br>tion<br>line<br>found<br>[Sorgh<br>um<br>bicolor<br>r]      |
| 166450 | ATU028<br>390 | ATL8C3<br>2252:1<br>..2294        | nap |  |  |  |  | ATL8C3<br>2252:1<br>54..21<br>76  | 0.84 | g45394<br>14 | 67 | 1937 | 2.3e-<br>180 | (AL049<br>524)<br>putati<br>ve<br>subtil<br>isin-<br>like<br>protea<br>se<br>[Arabi<br>dopsis |

|        |               |                                  |     |  |  |  |                                   |      |              |    |      |              |  |
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| 166451 | ATU028<br>391 | ATL8C4<br>5797:1<br>..4116       | nap |  |  |  | ATL8C4<br>5797:3<br>849..3<br>450 | 0.83 | g22583<br>17 | 67 | 905  | 3.4e-<br>101 | thalia<br>nal<br>(AF004<br>879)<br>resist<br>ance<br>comple<br>x protei<br>n I2C-<br>2<br>[Lycop<br>ersico<br>n eşule<br>ntum] |
| 166452 | ATU028<br>392 | ATL8C3<br>8055:2<br>178..1       | nap |  |  |  | ATL8C3<br>8055:2<br>178..3<br>17  | 0.83 | g22451<br>29 | 67 | 96   | 1.5e-<br>07  | (Z9734<br>4)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166453 | ATU028<br>393 | ATL8S1<br>7019:5<br>38..1        | nap |  |  |  | ATL8S1<br>7019:5<br>00..47        | 0.83 | g32615<br>91 | 67 | 308  | 3.4e-<br>23  | (Z7402<br>5)<br>fabG3<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]   |
| 166454 | ATU028<br>394 | ATL8C4<br>977:65<br>06..22<br>97 | nap |  |  |  | ATL8C4<br>977:63<br>85..22<br>97  | 0.83 | g11770<br>22 | 67 | 1358 | 8.8e-<br>118 | HYPOTH<br>ETICAL<br>PROTEI<br>N<br>KIAA00  |

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| 166455 | ATU028<br>395 | ATL8C1<br>9205:8<br>4..212<br>2 | nap |  |  |  | ATL8C1<br>9205:1<br>88..20<br>55 | 0.80 | g45665<br>05 | 67 | 907  | 3.6e-<br>88  | 52 [ ]<br>(AF102<br>868)<br>beta-<br>D-<br>glucan<br>exohyd<br>rolase<br>isoenz<br>yme<br>ExoI<br>[Horde<br>um<br>vulgar<br>e] |
| 166456 | ATU028<br>396 | ATL8C8<br>202:1.<br>.1622       | nap |  |  |  | ATL8C8<br>202:44<br>..1622       | 0.79 | g22448<br>60 | 67 | 578  | 2.0e-<br>72  | (Z9733<br>7)<br>cucumi<br>sin<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166457 | ATU028<br>397 | ATL8C4<br>0701:7<br>9..872      | nap |  |  |  | ATL8C4<br>0701:7<br>9..796       | 0.78 | g13635<br>28 | 67 | 1034 | 5.1e-<br>100 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]   |
| 166458 | ATU028<br>398 | ATL8C1<br>465:65<br>3..1        | nap |  |  |  | ATL8C1<br>465:60<br>2..73        | 0.78 | g44903<br>00 | 67 | 949  | 5.4e-<br>98  | (AL035<br>678)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166459 | ATU028        | ATL8C2                          | nap |  |  |  | ATL8C2                           | 0.78 | g45672       | 67 | 142  | 8.5e-        | (AC006   |

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|        | 399           | 0634:1<br>636..1<br>156           |     |  |  |  |  | 0634:1<br>526..1<br>185           | 72           |    |      |              | 09  | 841)<br>hypothesis<br>et al<br>protein<br>[Arabidopsis<br>thaliana] |
| 166460 | ATU028<br>400 | ATL8C1<br>6630:1<br>009..3<br>433 | nap |  |  |  |  | ATL8C1<br>6630:1<br>009..3<br>273 | g31766<br>59 | 67 | 1952 | 1.1e-<br>154 | (AC004<br>393)<br>Strong<br>similarity<br>to<br>receptor<br>or<br>kinase<br>gblM80<br>238<br>from<br>A.<br>thaliana.<br>[Arabidopsis<br>thaliana] |   |
| 166461 | ATU028<br>401 | ATL8C6<br>493:22<br>86..1         | nap |  |  |  |  | ATL8C6<br>493:22<br>14..29        | g28333<br>84 | 67 | 1839 | 8.1e-<br>206 | GLYCOG<br>EN<br>(STARCH)<br>SYNTHASE<br>PRECURSOR<br>(GBSSI<br>I)<br>(GRANULE-<br>LE-   |   |

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| 166462 | ATU028<br>402 | ATL8S2<br>2251:1<br>..588        | nap |  |  |  | ATL8S2<br>2251:5<br>5..572       | 0.76 | g13606<br>05 | 67 | 330 | 2.0e-<br>29 | BOUND<br>STARCH<br>SYNTHA<br>SE II)<br>[Pisum<br>sativu<br>m]<br>(Z4880<br>1)<br>ORF3<br>[Synec<br>hococc<br>us<br>PCC794<br>2] |
| 166463 | ATU028<br>403 | ATL8C2<br>0565:4<br>423..1<br>85 | nap |  |  |  | ATL8C2<br>0565:4<br>402..1<br>85 | 0.75 | g42630<br>62 | 67 | 431 | 1.9e-<br>40 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 166464 | ATU028<br>404 | ATL8S2<br>437:66<br>8..4         | nap |  |  |  | ATL8S2<br>437:62<br>1..10        | 0.74 | g32532<br>02 | 67 | 774 | 2.9e-<br>72 | (AF029<br>714)<br>PhaF<br>[Pseud<br>omonas<br>putida<br>]   |
| 166465 | ATU028<br>405 | ATL8S2<br>6637:4<br>65..13<br>3  | nap |  |  |  | ATL8S2<br>6637:4<br>02..13<br>3  | 0.74 | g98797       | 67 | 197 |             | 10K<br>antige<br>n -<br>Mycoba<br>cteriu<br>m<br>tuberc<br>ulosis   |

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| 166466 | ATU028<br>406 | ATL8C4<br>0092:1<br>..1336       | nap |  |  |  | ATL8C4<br>0092:1<br>41..10<br>58 | 0.74 | g22447<br>78 | 67 | 950  | 7.0e-<br>73  | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166467 | ATU028<br>407 | ATL8C2<br>3724:1<br>..1796       | nap |  |  |  | ATL8C2<br>3724:9<br>9..165<br>0  | 0.74 | g40068<br>86 | 67 | 972  | 6.3e-<br>81  | (Z9970<br>8)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166468 | ATU028<br>408 | ATL8C2<br>4272:3<br>219..8<br>77 | nap |  |  |  | ATL8C2<br>4272:3<br>199..8<br>77 | 0.72 | g43253<br>66 | 67 | 2881 | 3.4e-<br>294 | (AF128<br>396)<br>simila<br>r to<br>maize<br>transp<br>oson<br>MuDR-<br>like<br>protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166469 | ATU028<br>409 | ATL8S1<br>3902:1                 | nap |  |  |  | ATL8S1<br>3902:1                 | 0.70 | g24944<br>01 | 67 | 263  | 7.9e-<br>25  | ELECTR<br>ON  |





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| 166471 | ATU028<br>411 | ATL8S2<br>5270:4<br>32..1        | nap |  |  |  |  |  | ATL8S2<br>5270:4<br>32..29<br>4  | 0.69 |  | g38205<br>09                  | 67     | 193          | 1.7e-<br>15                  | (AF061<br>446)<br>unknown<br>[Chrom<br>obacte<br>rium<br>violac<br>eum]  | ichia<br>coli<br>[] |
| 166472 | ATU028<br>412 | ATL8S1<br>8144:5<br>55..1        | nap |  |  |  |  |  | ATL8S1<br>8144:5<br>55..11       | 0.69 |  | g29096<br>48                  | 67     | 162          | 1.7e-<br>13                  | (AL021<br>943)<br>echA5<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]   |                     |
| 166473 | ATU028<br>413 | ATL8C2<br>203:59<br>95..38<br>80 | nap |  |  |  |  |  | ATL8C2<br>203:58<br>39..40<br>88 | 0.69 |  | g33778<br>30,<br>g43097<br>05 | 67, 34 | 1395,<br>217 | 4.4e-<br>127,<br>1.7e-<br>18 | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Aplysi<br>a<br>califo<br>rnica<br>interm<br>ediate<br>filame<br>nt<br>protei<br>n A<br>(GB:X6<br>0297) |                     |



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| 166476 | ATU028<br>416 | ATL8C4<br>145:12<br>75..1  | nap |  |  |  |  |  | ATL8C4<br>145:12<br>75..19       | 0.64 | g46893<br>34 | 67 | 104  | 8.3e-<br>06  | P-Loop<br>domain<br>s<br>[Pinus<br>radiat<br>al;<br>(AL049<br>638)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n (TMV<br>N-<br>like)<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AF132<br>555)<br>BcDNA.<br>GM0765<br>9<br>[Droso<br>phila<br>melano<br>gaster<br>] |
| 166477 | ATU028<br>417 | ATL8C1<br>2710:1<br>..1729 | nap |  |  |  |  |  | ATL8C1<br>2710:5<br>76..15<br>01 | 0.63 | g42638<br>30 | 67 | 1245 | 2.9e-<br>103 | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis]  |

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| 166478 | ATU028<br>418 | ATL8C1<br>5409:1<br>..1867       | nap |  |  |  |  | ATL8C1<br>5409:1<br>15..13<br>73 | 0.59 | g49144<br>02 | 67 | 209  | 1.3e-<br>17  | thalia<br>na]<br>(AL050<br>352)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 166479 | ATU028<br>419 | ATL8C3<br>0795:1<br>..1296       | nap |  |  |  |  | ATL8C3<br>0795:1<br>97..12<br>96 | 0.54 | g19030<br>34 | 67 | 959  | 4.6e-<br>90  | (X9462<br>5)<br>amp-<br>bindin<br>g<br>protei<br>n<br>[Brass<br>ica<br>napus]   |
| 166480 | ATU028<br>420 | ATL8C2<br>0793:1<br>142..2<br>38 | nap |  |  |  |  | ATL8C2<br>0793:9<br>99..23<br>8  | 0.53 | g37639<br>36 | 67 | 1187 | 2.3e-<br>121 | (AC004<br>450)<br>putati<br>ve<br>myb-<br>relate<br>d<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166481 | ATU028<br>421 | ATL8C2<br>5752:4<br>6..189       | nap |  |  |  |  | ATL8C2<br>5752:4<br>6..175       | 0.53 | g43226<br>70 | 67 | 119  | 0.995        | (AF094<br>508)<br>dentin  |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |   |
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| 166482 | ATU028<br>422 | ATL8C3<br>7228:2<br>28..97<br>5   | nap |  |  |  |  | 4                                 | 0.50 | g44067<br>68 | 67 | 426  |              | phosphoryn<br>[Homo<br>sapien<br>s]   |
| 166483 | ATU028<br>423 | ATL8C1<br>759:17<br>24..12<br>6   | nap |  |  |  |  | ATL8C3<br>7228:2<br>28..84<br>8   | 0.49 | g47739<br>20 | 67 | 1309 | 9.5e-<br>141 | (AC006<br>836)<br>putati<br>ve<br>flavon<br>ol<br>sulfot<br>ransfe<br>rase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166484 | ATU028<br>424 | ATL8C4<br>6969:1<br>490..4<br>146 | nap |  |  |  |  | ATL8C1<br>6969:1<br>490..3<br>802 | 0.47 | g44163<br>01 | 67 | 2507 | 2.5e-<br>219 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 166485 | ATU028<br>425 | ATL8C1<br>741:15<br>76..1         | nap |  |  |  |  | ATL8C1<br>741:10<br>10..23<br>0   | 0.44 | g43253<br>48 | 67 | 376  | 5.9e-<br>31  | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]<br>(AF128<br>394)<br>contai<br>ns                         |

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| 166486 | ATU028<br>426 | ATL8C2<br>824:13<br>06..56<br>4  | nap |  |  |  |  |  | ATL8C2<br>824:12<br>60..56<br>4   | 0.44 | g34137<br>06 | 67 | 434 | 1.6e-<br>43 | (AC004<br>747)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 166487 | ATU028<br>427 | ATL8S5<br>293:21<br>..520        | nap |  |  |  |  |  | ATL8S5<br>293:21<br>..135         | 0.43 | g28087<br>83 | 67 | 189 | 6.1e-<br>16 | (AL021<br>411)<br>hypoth<br>etical<br>protei<br>n<br>SC7H1.<br>25c<br>[Strep<br>tomyce<br>s<br>coelic<br>olor] |
| 166488 | ATU028<br>428 | ATL8C4<br>8787:8<br>40..22<br>15 | nap |  |  |  |  |  | ATL8C4<br>8787:1<br>151..2<br>207 | 0.43 | g45875<br>77 | 67 | 427 | 5.2e-<br>50 | (AC006<br>550)<br>F1003.<br>17<br>[Arabi<br>dopsis   |



|        |               |                                 |     |  |  |  |                                  |      |              |    |      |              |   |
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| 166492 | ATU028<br>432 | ATL8C2<br>1691:3<br>509..5<br>7 | nap |  |  |  | ATL8C2<br>1691:3<br>509..5<br>7  | 0.40 | g33778<br>34 | 67 | 1275 | 9.3e-<br>114 | (AF075<br>598)<br>NO<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 166493 | ATU028<br>433 | ATL8C2<br>316:28<br>73..38<br>3 | nap |  |  |  | ATL8C2<br>316:26<br>55..12<br>52 | 0.40 | g37460<br>69 | 67 | 2361 | 1.1e-<br>224 | (AC005<br>311)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166494 | ATU028<br>434 | ATL8S2<br>9580:1<br>28..63<br>4 | nap |  |  |  |                                  |      | g45389<br>71 | 67 | 113  | 2.4e-<br>12  | (AL049<br>488)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 166495 | ATU028<br>435 | ATL8S5<br>383:18<br>1..375      | nap |  |  |  |                                  |      | g76277       | 67 | 120  | 0.0002<br>6  | hypoth<br>etical<br>11K<br>protei<br>n<br>(inser  |



|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |     |              |  |  |
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| 166496 | ATU028<br>436 | ATL8S1<br>6349:5<br>12..25<br>0 | nap |  |  |  |  |  |  |  |  |  | g44173<br>02 | 67 | 356 | 1.3e-<br>07  | (AC006<br>446)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       | tion<br>seque<br>IS1) -<br>Escher<br>ichia<br>coli<br>[] |
| 166497 | ATU028<br>437 | ATL8C4<br>342:20<br>36..60<br>2 | nap |  |  |  |  |  |  |  |  |  | g46783<br>48 | 67 | 945 | 6.2e-<br>103 | (AL049<br>659)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]           |  |
| 166498 | ATU028<br>438 | ATL8C4<br>3464:1<br>163..1      | nap |  |  |  |  |  |  |  |  |  | g18711<br>79 | 67 | 201 |              | (U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 166499 | ATU028        | ATL8S2                          | nap |  |  |  |  |  |  |  |  |  | g35137       | 67 | 774 | 4.0e-        | (AF080   |  |

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|        | 439           | 7496:1<br>..575                  |     |  |  |  |  |  |  | 26           |    |      |                                  | 66  | 118)<br>F8M12.<br>23<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166500 | ATU028<br>440 | ATL8C4<br>9615:1<br>..1636       | nap |  |  |  |  |  |  | g33675<br>32 | 67 | 1796 | 7.5e-<br>189                     | (AC004<br>392)<br>Strong<br>simila<br>rity<br>to<br>unknow<br>n<br>protei<br>n<br>T28M21.<br>.21<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 166501 | ATU028<br>441 | ATL8C8<br>301:20<br>74..24<br>69 | nap |  |  |  |  |  |  | g40380<br>66 | 67 | 418  | 4.5e-<br>11                      | (AC005<br>897)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |  |
| 166502 | ATU028<br>442 | ATL8C3<br>3926:1<br>174..1       | nap |  |  |  |  |  |  | g22448<br>38 | 67 | 533  | (Z9733<br>7)<br>hypothe<br>tical |   |  |

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| 166503 | ATU028<br>443 | ATL8C4<br>3524:7<br>73..1        | nap |  |  |  |  |  |  |  |  |  | g27087<br>51                  | 67     | 347         |                             | protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 166504 | ATU028<br>444 | ATL8C4<br>1037:7<br>83..1        | nap |  |  |  |  |  |  |  |  |  | g45858<br>84                  | 67     | 270         | 6.2e-<br>27                 | (AC005<br>850)<br>Hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166505 | ATU028<br>445 | ATL8C4<br>9541:1<br>..233        | nap |  |  |  |  |  |  |  |  |  | g47259<br>52                  | 67     | 356         | 4.5e-<br>31                 | (AL049<br>730)<br>AIR1A-<br>like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166506 | ATU028<br>446 | ATL8C1<br>0833:2<br>440..3<br>76 | nap |  |  |  |  |  |  |  |  |  | g45899<br>61,<br>g30045<br>55 | 67, 37 | 342,<br>359 | 5.5e-<br>38,<br>3.0e-<br>36 | (AC007<br>169)<br>unknown  |



|        |               |                            |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|---|
| 166509 | ATU028<br>449 | ATL8C4<br>385:68<br>7..1   | nap |  |  |  |  |  |  |  |  |  | g28084<br>38 | 67 | 687 | 4.7e-<br>63 | (X7969<br>4) bg4<br>[Arabi<br>dopsis<br>thalia<br>nal]  | 445<br>from<br>Solanu<br>m<br>pimpin<br>ellifo<br>lium.<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166510 | ATU028<br>450 | ATL8S2<br>691:40<br>0..1   | nap |  |  |  |  |  |  |  |  |  | g13635<br>9  | 67 | 337 | 6.3e-<br>30 | ANTHRA<br>NILATE<br>SYNTHA<br>SE<br>COMPON<br>ENT II<br>(GLUTA<br>MINE<br>AMIDO-<br>TRANSF<br>ERASE)<br>[Pseud<br>omonas<br>aerugi<br>nosa] |   |
| 166511 | ATU028<br>451 | ATL8C4<br>939:11<br>2..638 | nap |  |  |  |  |  |  |  |  |  | g31842<br>86 | 67 | 163 | 1.9e-<br>16 | (AC004<br>136)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis   |   |

|        |               |                                 |     |  |  |  |  |  |  |  |  |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|--------------|---|
| 166512 | ATU028<br>452 | ATL8C1<br>4500:1<br>..3140      | nap |  |  |  |  |  |  |  |  | g44327<br>94 | 67 | 1755 | 1.4e-<br>141 | thalia<br>na]<br>(AC006<br>437)<br>putati<br>ve<br>Tnp2<br>Tam1<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166513 | ATU028<br>453 | ATL8S2<br>2888:3<br>47..1       | nap |  |  |  |  |  |  |  |  | g29839<br>97 | 67 | 281  | 4.1e-<br>24  | (AE000<br>749)<br>hypo<br>thetical<br>protei<br>n<br>[Aquif<br>ex<br>aeolic<br>us]  |
| 166514 | ATU028<br>454 | ATL8C4<br>932:1.<br>.751        | nap |  |  |  |  |  |  |  |  | g45389<br>00 | 67 | 547  | 3.7e-<br>36  | (AL049<br>482)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166515 | ATU028<br>455 | ATL8C4<br>4252:8<br>21..34<br>8 | nap |  |  |  |  |  |  |  |  | g21941<br>18 | 67 | 103  | 1.9e-<br>06  | (AC002<br>062)<br>F20P5.<br>4 gene  |

|        |               |                           |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 166516 | ATU028<br>456 | ATL8C7<br>154:79<br>7..1  | nap |  |  |  |  |  |  |  |  |  | g42635<br>18 | 67 | 818 | 2.8e-<br>51 | (AC004<br>044)<br>simila<br>r to<br>PHZF,<br>cataly<br>zing<br>the<br>hydrox<br>ylatio<br>n of<br>phenaz<br>ine-1-<br>carbox<br>ylic<br>acid<br>to 2-<br>hydrox<br>y-<br>phenaz<br>ine-1-<br>carbox<br>ylic<br>acid<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166517 | ATU028<br>457 | ATL8S2<br>1585:1<br>..489 | nap |  |  |  |  |  |  |  |  |  | g11762<br>81 | 67 | 191 | 7.3e-<br>20 | HYPOTH<br>ETICAL<br>26.3<br>KD<br>PROTEI<br>N IN   |

| 166518 | ATU028<br>458 | ATL8S2<br>8748:4<br>98..1 | nap |  |  |  |  |  |  |  |  |  | g24927<br>67 | 67 | 453 | 1.2e-<br>35  | PUTATI<br>VE<br>SHORT-<br>CHAIN<br>TYPE<br>DEHYDR<br>OGENAS<br>E/REDU<br>CTASE<br>Y4MP<br>[Rhizo<br>bium<br>sp.<br>NGR234<br>] | GNT-<br>GGT<br>INTERG<br>ENIC<br>REGION<br>(F231)<br>[Esche<br>richia<br>coli] |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|--------------|--|--|
| 166519 | ATU028<br>459 | ATL8S7<br>161:1.<br>.545  | nap |  |  |  |  |  |  |  |  |  | g48083<br>54 | 67 | 303 | 4.6e-<br>17  | (AL049<br>841)<br>putati<br>ve<br>estera<br>se<br>[Strep<br>tomyce<br>s<br>coelic<br>olor]                                     |  |
| 166520 | ATU028<br>460 | ATL8C2<br>999:1.<br>.960  | nap |  |  |  |  |  |  |  |  |  | g45824<br>61 | 67 | 993 | 2.7e-<br>102 | (AC007<br>071)<br>putati<br>ve<br>triacy   |  |











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|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 166534 | ATU028<br>474 | ATL8S2<br>1762:5<br>46..17<br>2   | nap |  |  |  |  | ATL8S2<br>1762:4<br>03..17<br>2   | 0.99 | g24401<br>81 | 66 | 241 | 1.2e-<br>19 | dopsis<br>thalia<br>na]  |
| 166535 | ATU028<br>475 | ATL8C1<br>6616:1<br>009..1        | nap |  |  |  |  | ATL8C1<br>6616:1<br>003..7<br>3   | 0.99 | g48503<br>83 | 66 | 881 | 2.5e-<br>79 | (Z9953<br>1) 40s<br>riboso<br>ma<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe]      |
| 166536 | ATU028<br>476 | ATL8C4<br>8987:2<br>290..1<br>911 | nap |  |  |  |  | ATL8C4<br>8987:2<br>290..1<br>911 | 0.99 | g45147<br>16 | 66 | 258 | 6.8e-<br>19 | (AC007<br>357)<br>Contai<br>ns<br>simila<br>rity<br>to<br>[]                                       |
| 166537 | ATU028<br>477 | ATL8C7<br>451:11<br>25..64<br>5   | nap |  |  |  |  | ATL8C7<br>451:10<br>64..64<br>5   | 0.98 | g34618<br>27 | 66 | 311 | 3.7e-<br>17 | (AB017<br>533)<br>EPC<br>[Nicot<br>iana<br>tabacu<br>m]  |
|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             | (AC004<br>138)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 166538 | ATU028<br>478 | ATL8C3<br>5256:1<br>..1413        | nap |  |  |  | ATL8C3<br>5256:2<br>78..14<br>10  | 0.97 | g31932<br>92 | 66 | 512 | 1.1e-<br>42 | thalia<br>nal<br>(AF069<br>298)<br>simila<br>r to<br>ATPase<br>s<br>associ<br>ated<br>with<br>variou<br>s<br>cellul<br>ar<br>activi<br>tes<br>(Pfam:<br>AAA.hm<br>m,<br>score:<br>230.91<br>)<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 166539 | ATU028<br>479 | ATL8C1<br>3017:2<br>897..4<br>583 | nap |  |  |  | ATL8C1<br>3017:3<br>393..4<br>564 | 0.93 | g31579<br>43 | 66 | 647 | 9.0e-<br>36 | (AC002<br>131)<br>Contai<br>ns<br>simila<br>rity<br>to<br>BAP31<br>protei<br>n<br>gb X81<br>816<br>from  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 166540 | ATU028<br>480 | ATL8S2<br>9065:4<br>87..1        | nap |  |  |  |  | ATL8S2<br>9065:4<br>87..10       | 0.92 | g16526<br>45 | 66 | 220 | 1.1e-<br>14 | Mus<br>muscul<br>us.<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             | (D9090<br>7)<br>phosph<br>oglyco<br>late<br>phosph<br>atase<br>[Synec<br>hocyst<br>is<br>sp.]                                   |
| 166541 | ATU028<br>481 | ATL8C3<br>2120:7<br>12..19<br>8  | nap |  |  |  |  | ATL8C3<br>2120:7<br>12..19<br>8  | 0.92 | g43712<br>95 | 66 | 478 | 1.7e-<br>43 | (AC006<br>260)<br>putati<br>ve<br>CCAAT-<br>bindin<br>g<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |
| 166542 | ATU028<br>482 | ATL8C3<br>7298:1<br>072..2<br>98 | nap |  |  |  |  | ATL8C3<br>7298:1<br>027..3<br>13 | 0.89 | g34510<br>78 | 66 | 378 |             | (AL031<br>326)<br>putati<br>ve<br>protei<br>n<br>[Arabi   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166543 | ATU028<br>483 | ATL8S2<br>0199:1<br>..484        | nap |  |  |  |  | ATL8S2<br>0199:1<br>34..48<br>4  | 0.85 | g45844<br>94 | 66 | 279  | 3.2e-<br>11  | dopsis<br>thalia<br>na]<br>(AL049<br>587)<br>hypoth<br>etical<br>protein<br>[Strep<br>tomyces<br>coelic<br>olor] |
| 166544 | ATU028<br>484 | ATL8S2<br>6875:3<br>26..1        | nap |  |  |  |  | ATL8S2<br>6875:3<br>26..13<br>2  | 0.85 | g31228<br>18 | 66 | 252  |              | 30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S6<br>[Neiss<br>eria<br>gonorr<br>hoeae]                                     |
| 166545 | ATU028<br>485 | ATL8C3<br>2303:1<br>02..10<br>33 | nap |  |  |  |  | ATL8C3<br>2303:1<br>02..56<br>8  | 0.83 | g23203<br>1  | 66 | 290  | 3.3e-<br>08  | ELONGA<br>TION<br>FACTOR<br>1<br>BETA'<br>[Oryza<br>sativa<br>]  |
| 166546 | ATU028<br>486 | ATL8C1<br>2798:1<br>895..1       | nap |  |  |  |  | ATL8C1<br>2798:1<br>895..8<br>12 | 0.83 | g35401<br>88 | 66 | 1551 | 7.7e-<br>141 | (AC004<br>122)<br>Hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia                                      |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166547 | ATU028<br>487 | ATL8C3<br>0879:1<br>89..58<br>6  | nap |  |  |  | ATL8C3<br>0879:1<br>89..58<br>6  | 0.82 | g41057<br>94 | 66 | 136  | 0.092        | na]<br>(AF049<br>928)<br>PGP224<br>[Petun<br>ia x<br>hybrid<br>a]                          |
| 166548 | ATU028<br>488 | ATL8C4<br>2355:1<br>065..1       | nap |  |  |  | ATL8C4<br>2355:9<br>99..48<br>6  | 0.81 | g31933<br>21 | 66 | 513  | 1.5e-<br>56  | (AF069<br>299)<br>No defi<br>nition<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166549 | ATU028<br>489 | ATL8C3<br>2625:1<br>709..4<br>67 | nap |  |  |  | ATL8C3<br>2625:1<br>650..4<br>67 | 0.81 | g45860<br>53 | 66 | 1852 | 3.4e-<br>175 | (AC007<br>020)<br>putati<br>ve<br>lacass<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 166550 | ATU028<br>490 | ATL8C1<br>1772:1<br>208..1       | nap |  |  |  | ATL8C1<br>1772:1<br>180..9<br>0  | 0.81 | g45393<br>01 | 66 | 810  | 4.6e-<br>78  | (AL049<br>480)<br>putati<br>ve<br>mitoch<br>ondria<br>l<br>protei<br>n<br>[Arabi<br>dopsis |

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|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166551 | ATU028<br>491 | ATL8C2<br>4414:1<br>913..1<br>18 | nap |  |  |  | ATL8C2<br>4414:1<br>615..1<br>18 | 0.80 | g48877<br>54 | 66 | 1140 | 1.4e-<br>97  | (AC006<br>533)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 166552 | ATU028<br>492 | ATL8C1<br>7102:1<br>..1293       | nap |  |  |  | ATL8C1<br>7102:1<br>55..11<br>31 | 0.80 | g48352<br>44 | 66 | 693  | 4.8e-<br>60  | (AL049<br>862)<br>putative<br>mitochondria<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166553 | ATU028<br>493 | ATL8C3<br>4276:1<br>..1734       | nap |  |  |  | ATL8C3<br>4276:1<br>94..16<br>71 | 0.79 | g46801<br>80 | 66 | 1604 | 6.2e-<br>160 | (AF111<br>709)<br>polyprotein<br>[Oryza<br>sativa<br>subsp.<br>indica<br>]                 |
| 166554 | ATU028<br>494 | ATL8C1<br>5954:2<br>223..1       | nap |  |  |  | ATL8C1<br>5954:2<br>223..2<br>35 | 0.79 | g21905<br>45 | 66 | 1273 | 1.9e-<br>91  | (AC001<br>229)<br>Simila<br>r to<br>Zea<br>mays  |



|        |                       |                                  |     |  |  |                                   |      |              |    |      |              |   |
|--------|-----------------------|----------------------------------|-----|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 497    | 5947:1<br>72..62<br>4 |                                  |     |  |  | 5947:1<br>72..52<br>3             | 53   |              |    |      | 28           | 0) gag<br>gene<br>produc<br>t<br>[Zea<br>mays]  |
| 166558 | ATU028<br>498         | ATL8S2<br>5053:1<br>..570        | nap |  |  | ATL8S2<br>5053:1<br>81..45<br>7   | 0.78 | g45859<br>24 | 66 | 290  | 4.3e-<br>17  | (AC007<br>211)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 166559 | ATU028<br>499         | ATL8C1<br>0249:2<br>184..1<br>7  | nap |  |  | ATL8C1<br>0249:2<br>175..3<br>93  | 0.76 | g41917<br>80 | 66 | 1007 |              | (AC005<br>917)<br>putati<br>ve<br>cytoki<br>nin<br>oxidas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166560 | ATU028<br>500         | ATL8C4<br>1756:1<br>22..75<br>00 | nap |  |  | ATL8C4<br>1756:1<br>341..7<br>500 | 0.76 | g25650<br>07 | 66 | 1773 | 2.4e-<br>240 | (AC002<br>983)<br>predic<br>ted<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 166561 | ATU028<br>501 | ATL8C1<br>0767:1<br>05..10<br>38 | nap |  |  |  | ATL8C1<br>0767:1<br>05..10<br>38 | 0.75 | g32585<br>76 | 66 | 277 | 4.7e-<br>30 | (U8995<br>9)<br>Unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 166562 | ATU028<br>502 | ATL8C3<br>9803:1<br>4..679       | nap |  |  |  | ATL8C3<br>9803:1<br>80..52<br>9  | 0.72 | g47411<br>85 | 66 | 388 | 3.7e-<br>36 | (AL049<br>746)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 166563 | ATU028<br>503 | ATL8C1<br>5543:1<br>..1342       | nap |  |  |  | ATL8C1<br>5543:9<br>0..134<br>2  | 0.71 | g30805<br>29 | 66 | 101 | 8.0e-<br>07 | (AL022<br>600)<br>hypoth<br>etical<br>protein<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombel] |
| 166564 | ATU028<br>504 | ATL8S1<br>5410:5<br>33..1        | nap |  |  |  | ATL8S1<br>5410:5<br>22..19<br>3  | 0.71 | g39293<br>44 | 66 | 298 | 3.9e-<br>22 | CYTOCH<br>ROME<br>C1<br>PRECUR<br>SOR<br>[Chrom<br>atium<br>vinosu<br>m]                     |



|        |               |                                  |       |  |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-------|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 166569 | ATU028<br>509 | ATL8C3<br>2919:1<br>345..1       | nap   |  |  |  |  | ATL8C3<br>2919:1<br>345..1<br>48  | 0.70 | g10764<br>44 | 66 | 558 | 6.0e-<br>42 | cyclin<br>- rape<br>[Brass<br>ica<br>napus]<br>kinase<br>ATN1<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166570 | ATU028<br>510 | ATL8C1<br>1671:1<br>113..1<br>43 | nap   |  |  |  |  | ATL8C1<br>1671:9<br>06..14<br>3   | 0.70 | g29807<br>90 | 66 | 316 | 4.9e-<br>38 | (AL022<br>197)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 166571 | ATU028<br>511 | ATL8C3<br>5270:2<br>366..1       | nap . |  |  |  |  | ATL8C3<br>5270:2<br>366..2<br>84  | 0.69 | g30471<br>02 | 66 | 822 | 4.0e-<br>73 | (AF058<br>919)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 166572 | ATU028<br>512 | ATL8C4<br>3697:7<br>05..34<br>91 | nap   |  |  |  |  | ATL8C4<br>3697:2<br>690..1<br>788 | 0.68 | g45126<br>98 | 66 | 615 |             | (AC006<br>569)<br>hypoth<br>etical<br>protei  |

|        |               |                                 |     |  |  |  |                                 |      |                               |        |            |                      |  |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|-------------------------------|--------|------------|----------------------|--|
| 166573 | ATU028<br>513 | ATL8S2<br>0404:5<br>93..18<br>4 | nap |  |  |  | ATL8S2<br>0404:4<br>04..18<br>7 | 0.68 | g29840<br>29                  | 66     | 211        | 1.2e-<br>19          | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AE000<br>752)<br>ribofl<br>avin<br>syntha<br>se<br>alpha<br>chain<br>[Aquif<br>ex<br>aeolic<br>us]                |
| 166574 | ATU028<br>514 | ATL8S2<br>9816:6<br>09..1       | nap |  |  |  | ATL8S2<br>9816:5<br>39..10      | 0.68 | g10826<br>04,<br>g10761<br>06 | 66, 39 | 96,<br>213 | 0.71,<br>2.3e-<br>22 | mucin<br>5AC<br>(clone<br>JER58)<br>-<br>human<br>(fragm<br>ent)<br>[Homo<br>sapien<br>sl];<br>schC<br>protei<br>n -<br>Strept<br>omyces<br>halste<br>di. [] |
| 166575 | ATU028<br>515 | ATL8C2<br>3011:1<br>96..73<br>2 | nap |  |  |  | ATL8C2<br>3011:1<br>96..58<br>6 | 0.67 | g45726<br>67                  | 66     | 205        | 1.3e-<br>17          | (AC006<br>954)<br>hypoth<br>etical<br>protei   |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |     |  |
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| 166576 | ATU028<br>516 | ATL8C4<br>2950:5<br>517..4<br>38 | nap |  |  |  |  | ATL8C4<br>2950:4<br>817..4<br>38 | 0.67 | g22450<br>44 | 66 | 5295 | 0.0 | n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166577 | ATU028<br>517 | ATL8C9<br>216:22<br>72..85<br>7  | nap |  |  |  |  | ATL8C9<br>216:21<br>73..85<br>7  | 0.67 | g17527<br>34 | 66 | 1661 |     | (D7851<br>0)<br>beta-<br>glucan<br>-<br>elicit<br>or<br>recept<br>or<br>[Glyci<br>ne<br>max] |

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| 166578 | ATU028<br>518 | ATL8C4<br>8700:5<br>14..23<br>07  | nap |  |  |  | ATL8C4<br>8700:6<br>34..22<br>17  | 0.65 | g22450<br>15 | 66 | 1340 | 1.2e-<br>138 | (Z9734<br>1)<br>unname<br>d<br>protei<br>n<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166579 | ATU028<br>519 | ATL8C1<br>4013:1<br>022..2<br>580 | nap |  |  |  | ATL8C1<br>4013:1<br>022..2<br>360 | 0.65 | g13635<br>28 | 66 | 1118 | 6.2e-<br>113 | gag<br>protei<br>n -<br>maize<br>[Zea<br>mays]  |
| 166580 | ATU028<br>520 | ATL8C1<br>2050:1<br>452..1        | nap |  |  |  | ATL8C1<br>2050:9<br>67..15<br>8   | 0.63 | g48072<br>5  | 66 | 1201 | 1.1e-<br>127 | beta-<br>fructo<br>furano<br>sidase<br>(EC<br>3.2.1.<br>26) -<br>Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166581 | ATU028<br>521 | ATL8C4<br>8205:1<br>..1206        | nap |  |  |  | ATL8C4<br>8205:6<br>5..120<br>0   | 0.63 | g44552<br>76 | 66 | 903  | 2.3e-<br>80  | (AL035<br>527)<br>peptid<br>e<br>transp<br>orter-<br>like   |

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| 166582 | ATU028<br>522  | ATL8S2<br>9269:5<br>28..14<br>8   | nap |  |  |  | ATL8S2<br>9269:3<br>69..14<br>8   | 0.60 | g16520<br>32 | 66 | 268  | 1.7e-<br>24 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(D9090<br>2)<br>adenyl<br>ylsulf<br>ate 3-<br>phosph<br>otrans<br>ferase<br>[Synec<br>hocyst<br>is<br>sp.] |
| 166583 | ATU028.<br>523 | ATL8C1<br>0410:1<br>826..6<br>870 | nap |  |  |  | ATL8C1<br>0410:1<br>826..6<br>695 | 0.60 | g32528<br>18 | 66 | 5083 |             | (AC004<br>705)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166584 | ATU028<br>524  | ATL8C4<br>164:1.<br>.701          | nap |  |  |  | ATL8C4<br>164:95<br>..698         | 0.59 | g39803<br>99 | 66 | 639  | 7.1e-<br>59 | (AC004<br>561)<br>putati<br>ve<br>tropin<br>one<br>reduct<br>ase<br>[Arabi<br>dopsis<br>thalia<br>na]  |

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| 166585 | ATU028<br>525 | ATL8C1<br>7232:3<br>999..1 | nap |  |  |  | ATL8C1<br>7232:9<br>22..10<br>, ATL8C1<br>7232:3<br>999..1<br>623 | 0.58,<br>0.74 | g44327<br>97                  | 66     | 1911        | 7.0e-<br>178                | (AC006<br>437)<br>putati<br>ve pol<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166586 | ATU028<br>526 | ATL8S1<br>3689:3<br>74..1  | nap |  |  |  | ATL8S1<br>3689:3<br>08..17<br>3                                   | 0.57          | g11729<br>02                  | 66     | 160         | 2.1e-<br>13                 | REGA<br>PROTEI<br>N<br>[Rhodo<br>bacter<br>capsul<br>atus]   |
| 166587 | ATU028<br>527 | ATL8C4<br>8963:1<br>162..1 | nap |  |  |  | ATL8C4<br>8963:1<br>098..2<br>20                                  | 0.55          | g48357<br>67                  | 66     | 238         | 5.6e-<br>23                 | (AC007<br>202)<br>T8K14.<br>16<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166588 | ATU028<br>528 | ATL8C1<br>2985:1<br>..4327 | nap |  |  |  | ATL8C1<br>2985:3<br>86..35<br>55                                  | 0.55          | g45046<br>29,<br>g31359<br>94 | 66, 62 | 537,<br>381 | 1.1e-<br>61,<br>5.3e-<br>48 | inhibi<br>tor of<br>kappa<br>light<br>polype<br>ptide<br>gene<br>enhanc<br>er in<br>B-<br>cells,<br>kinase<br>comple<br>x-<br>associ |

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| 166589 | ATU028<br>529 | ATL8C1<br>7761:1<br>127..1<br>71 | nap |  |  |  | ATL8C1<br>7761:1<br>024..1<br>71 | 0.55 | g44328<br>14 | 66 | 1123 | 2.8e-<br>98 | ated<br>protei<br>n;<br>IKAP<br>[Homo<br>sapien<br>s];<br>(AL023<br>589)<br>hypoth<br>etical<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombel]<br>(AC006<br>593)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(Z9558<br>4)<br>hypoth<br>etical<br>protei<br>n<br>Rv1144<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis |
| 166590 | ATU028<br>530 | ATL8S2<br>6287:5<br>02..1        | nap |  |  |  | ATL8S2<br>6287:3<br>98..11       | 0.54 | g21171<br>82 | 66 | 325  | 9.1e-<br>16 |   |

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| 166591 | ATU028<br>531 | ATL8C4<br>3455:8<br>78..30<br>94 | nap |  |  |  | ATL8C4<br>3455:8<br>78..25<br>68 | 0.49 | g33193<br>62 | 66 | 2964 |             | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>e<br>(Pfam:<br>rvt.hm<br>m,<br>score<br>19.29)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166592 | ATU028<br>532 | ATL8C2<br>9159:1<br>88..95<br>1  | nap |  |  |  | ATL8C2<br>9159:5<br>18..86<br>3  | 0.48 | g26606<br>77 | 66 | 640  | 3.0e-<br>69 | (AC002<br>342)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166593 | ATU028<br>533 | ATL8C4<br>3835:9<br>55..20<br>0  | nap |  |  |  | ATL8C4<br>3835:9<br>23..20<br>0  | 0.47 | g33778<br>54 | 66 | 908  |             | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi  |

|        |               |                                   |     |  |  |  |  |                                   |      |  |              |    |      |              |  |
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| 166594 | ATU028<br>534 | ATL8C3<br>0106:8<br>56..1         | nap |  |  |  |  | ATL8C3<br>0106:7<br>90..22<br>0   | 0.46 |  | g44552<br>03 | 66 | 748  | 2.9e-<br>74  | (AL035<br>440)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166595 | ATU028<br>535 | ATL8C4<br>5697:1<br>209..1        | nap |  |  |  |  | ATL8C4<br>5697:1<br>056..9<br>55  | 0.46 |  | g30637<br>10 | 66 | 238  | 5.2e-<br>25  | (AL022<br>537)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166596 | ATU028<br>536 | ATL8C4<br>5619:2<br>880..1<br>906 | nap |  |  |  |  | ATL8C4<br>5619:2<br>675..1<br>906 | 0.46 |  | g30804<br>04 | 66 | 1445 | 1.3e-<br>145 | (AL022<br>603)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166597 | ATU028<br>537 | ATL8C1<br>6497:1<br>..622         | nap |  |  |  |  | ATL8C1<br>6497:6<br>1..449        | 0.45 |  | g45394<br>44 | 66 | 422  | 4.3e-<br>42  | (AL049<br>523)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi                        |

|        |               |                                   |     |  |  |  |  |  |      |              |    |      |              |  |
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| 166598 | ATU028<br>538 | ATL8C3<br>7612:2<br>58..86<br>9   | nap |  |  |  |  |  | 0.44 | g29822<br>43 | 66 | 219  | 1.3e-<br>16  | dopsis<br>thalia<br>nal<br>(AF051<br>204)<br>hypoth<br>etical<br>protei<br>n<br>[Picea<br>marian<br>a] |
| 166599 | ATU028<br>539 | ATL8C3<br>5130:1<br>616..3<br>478 | nap |  |  |  |  |  | 0.43 | g23927<br>64 | 66 | 1440 | 3.8e-<br>133 | (AC002<br>534)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                |
| 166600 | ATU028<br>540 | ATL8C4<br>1495:7<br>40..1         | nap |  |  |  |  |  | 0.43 | g22450<br>79 | 66 | 210  | 3.9e-<br>25  | (Z9734<br>3)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                  |
| 166601 | ATU028<br>541 | ATL8C1<br>146:15<br>90..1         | nap |  |  |  |  |  | 0.42 | g45444<br>32 | 66 | 796  | 7.2e-<br>76  | (AC006<br>955)<br>putati<br>ve<br>mannos<br>e-1-<br>phosph<br>ate                                      |



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| 166602 | ATU028<br>542 | ATL8C3<br>3415:2<br>7..763 | nap |  |  |  | ATL8C3<br>3415:3<br>56..71<br>4 | 0.41 | g42630<br>51 | 66 | 105 | 3.8e-<br>07 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 166603 | ATU028<br>543 | ATL8C3<br>8972:5<br>54..1  | nap |  |  |  |                                 |      | g45389<br>91 | 66 | 53  | 0.66        | (AL049<br>481)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 166604 | ATU028<br>544 | ATL8C1<br>4151:9<br>86..1  | nap |  |  |  |                                 |      | g13453<br>2  | 66 | 400 | 9.3e-<br>45 | S-<br>LOCUS-<br>SPECIF<br>IC<br>GLYCOP<br>ROTEIN<br>S13<br>PRECUR<br>SOR<br>(SLSG-<br>13)<br>[] |
| 166605 | ATU028        | ATL8S1                     | nap |  |  |  | ATL8S1                          | 1.00 | g15725       | 65 | 538 | 1.5e-       | (U6719  |

|        |                       |                            |     |  |              |    |     |   |
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| 545    | 5551:2<br>20..59<br>9 | 5551:2<br>20..59<br>0      |     |  | 59           |    | 41  | 4)<br>TribM<br>[Enter<br>obacte<br>r<br>aeroge<br>nes]  |
| 166606 | ATU028<br>546         | ATL8C1<br>3491:1<br>405..1 | nap |  | g28326<br>47 | 66 | 271 | (AL021<br>710)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 166607 | ATU028<br>547         | ATL8C3<br>2168:1<br>..1485 | nap |  | g41153<br>76 | 66 | 816 | (AC005<br>967)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 166608 | ATU028<br>548         | ATL8C1<br>9826:1<br>..891  | nap |  | g36953<br>96 | 66 | 801 | (AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo |

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| 166609 | ATU028<br>549 | ATL8C8<br>75:116<br>5..1          | nap |  |  |  |  |  |  |  |  |  | g28326<br>29 | 66 | 1671 | 2.6e-<br>173 | son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166610 | ATU028<br>550 | ATL8C9<br>836:17<br>95..97<br>0   | nap |  |  |  |  |  |  |  |  |  | g42636<br>46 | 66 | 230  | 2.6e-<br>22  | (AL021<br>711)<br>4-<br>coumar<br>ate-<br>CoA<br>ligase<br>- like<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 166611 | ATU028<br>551 | ATL8C3<br>5744:3<br>174..4<br>423 | nap |  |  |  |  |  |  |  |  |  | g49143<br>81 | 66 | 1233 | 2.3e-<br>119 | (AC006<br>136)<br>putati<br>ve<br>TA1-<br>like<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |      |              | (AC007<br>584)<br>unknow<br>n<br>protei   |

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| 166612 | ATU028<br>552 | ATL8C5<br>0257:1<br>669..1 | nap |  |  |  |  |  |  |  |  |  | g46801<br>80 | 66 | 1570 | 2.2e-<br>145 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF111<br>709)<br>polypr<br>oteins<br>[Oryza<br>sativa<br>subsp.<br>indica<br>] |
| 166613 | ATU028<br>553 | ATL8C5<br>0016:1<br>353..1 | nap |  |  |  |  |  |  |  |  |  | g40068<br>69 | 66 | 645  | 1.4e-<br>61  | (Z9970<br>7)<br>patati<br>n-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 166614 | ATU028<br>554 | ATL8C4<br>5571:8<br>56..1  | nap |  |  |  |  |  |  |  |  |  | g34137<br>10 | 66 | 464  | 6.4e-<br>48  | (AC004<br>747)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 166615 | ATU028<br>555 | ATL8S2<br>4685:3<br>40..1  | nap |  |  |  |  |  |  |  |  |  | g47340<br>12 | 66 | 218  | 3.1e-<br>17  | (AC007<br>112)<br>hypoth<br>etical<br>protei<br>n   |

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| 166616 | ATU028<br>556 | ATL8S8<br>526:21<br>5..556       | nap |  |  |  |  |  |  |  |  |  | g47340<br>12 | 66 | 186 | 6.0e-<br>05 | (AC007<br>112)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166617 | ATU028<br>557 | ATL8C2<br>9267:6<br>64..1        | nap |  |  |  |  |  |  |  |  |  | g46789<br>26 | 66 | 361 | 9.1e-<br>24 | (AL049<br>711)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166618 | ATU028<br>558 | ATL8C1<br>2400:8<br>81..16<br>62 | nap |  |  |  |  |  |  |  |  |  | g45803<br>96 | 66 | 811 | 6.1e-<br>41 | (AC007<br>171)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166619 | ATU028<br>559 | ATL8C1<br>8011:1<br>..584        | nap |  |  |  |  |  |  |  |  |  | g21296<br>55 | 66 | 733 | 1.7e-<br>73 | OBP32p<br>ep<br>protein<br>-<br>Arabid<br>opsis                                    |

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| 166620 | ATU028<br>560 | ATL8C1<br>4758:1<br>943..1      | nap |  |  |  |  |  |  |  |  | g40380<br>56 | 66 | 2331 | 1.7e-<br>230 | (AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 166621 | ATU028<br>561 | ATL8C3<br>274:46<br>65..54<br>7 | nap |  |  |  |  |  |  |  |  | g43097<br>63 | 66 | 2938 | 7.3e-<br>244 | (AC006<br>217)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166622 | ATU028<br>562 | ATL8C4<br>6546:9<br>16..66<br>8 | nap |  |  |  |  |  |  |  |  | g49268<br>16 | 66 | 196  | 6.7e-<br>17  | (AC004<br>135)<br>T17H7.<br>1<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166623 | ATU028        | ATL8S1                          | nap |  |  |  |  |  |  |  |  | g24995       | 66 | 52   | 2.6e-        | PUTATI  |

|        |               |                           |     |  |  |  |  |  |  |              |    |     |             |    |   |
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| 166624 | 563           | 548:1.<br>.515            |     |  |  |  |  |  |  | 51           |    |     |             | 05 | VE LOW<br>MOLECU<br>LAR<br>WEIGHT<br>PROTEI<br>N-<br>TYROSI<br>NE-<br>PHOSPH<br>ATASE<br>[Synec<br>hocyst<br>is<br>sp.]   |
|        | ATU028<br>564 | ATL8C3<br>097:10<br>71..1 | nap |  |  |  |  |  |  | g31932<br>83 | 66 | 376 | 3.7e-<br>27 |    | (AF069<br>298)<br>simila<br>r to<br>Arabid<br>opsis<br>hypoth<br>etical<br>protei<br>n<br>T14G11<br>.25<br>(GB:<br>AC0023<br>41);<br>nearly<br>identi<br>cal,<br>may be<br>the<br>same<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia |





|        |               |                                   |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|--|
| 166629 | ATU028<br>569 | ATL8C3<br>1718:1<br>519..3<br>238 | nap |  |  |  |  |  |  |  |  |  | g42630<br>50 | 66 | 316 | 6.4e-<br>26 | (AC005<br>142)<br>putati<br>ve<br>noduli<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                   | putati<br>ve<br>fizzy-<br>related<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 166630 | ATU028<br>570 | ATL8C2<br>6431:8<br>60..11<br>60  | nap |  |  |  |  |  |  |  |  |  | g30640<br>39 | 66 | 144 | 1.7e-<br>11 | (AF054<br>445)<br>major<br>latex<br>protei<br>n<br>homolo<br>g<br>[Mesem<br>bryant<br>hemum<br>crysta<br>llinum<br>] | major<br>latex<br>protei<br>n<br>homolo<br>g<br>[Mesem<br>bryant<br>hemum<br>crysta<br>llinum<br>] |
| 166631 | ATU028<br>571 | ATL8C3<br>4805:7<br>01..17<br>6   | nap |  |  |  |  |  |  |  |  |  | g39129<br>26 | 66 | 186 | 9.2e-<br>15 | (AF001<br>308)<br>drough<br>t-<br>induce   | (AF001<br>308)<br>drough<br>t-<br>induce   |



|        |               |                                   |     |  |  |  |  |  |  |  |              |    |      |              |   |
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| 166635 | ATU028<br>575 | ATL8C4<br>7527:4<br>458..1<br>820 | nap |  |  |  |  |  |  |  | g44552<br>94 | 66 | 856  | 7.8e-<br>91  | dopsis<br>thalia<br>na]<br>(AL035<br>528)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 166636 | ATU028<br>576 | ATL8C2<br>1148:1<br>891..1        | nap |  |  |  |  |  |  |  | g42622<br>10 | 66 | 1051 | 2.1e-<br>86  | (AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper<br>transc<br>riptio<br>n<br>factor<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166637 | ATU028<br>577 | ATL8C3<br>6721:1<br>523..4<br>36  | nap |  |  |  |  |  |  |  | g46462<br>24 | 66 | 828  | 2.0e-<br>55  | (AC007<br>295)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166638 | ATU028<br>578 | ATL8C4<br>1106:1                  | nap |  |  |  |  |  |  |  | g43253<br>51 | 66 | 2618 | 4.6e-<br>259 | (AF128<br>394)  |

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|--------|---------------|---------------------------------|-----|----------------------------|--------------|----|------|--------------|---|
| 166639 | ATU028<br>579 | 670..1                          | nap | ATL8C4<br>5532:1<br>..1719 | g42638<br>30 | 66 | 1177 | 5.2e-<br>100 | simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n<br>(GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166640 | ATU028<br>580 | ATL8S2<br>9046:5<br>40..21<br>5 | nap |                            | g33230<br>63 | 66 | 170  | 2.0e-<br>14  | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166641 | ATU028        | ATL8C5                          | nap |                            | g47551       | 66 | 376  | 1.7e-        | (AE001<br>247)<br>polype<br>ptide<br>deform<br>ylase<br>(def)<br>[Trepo<br>nema<br>pallid<br>um]  |
|        |               |                                 |     |                            |              |    |      |              | (AC007  |

|        |                |                                   |     |  |  |  |  |  |              |    |     |             |  |  |
|--------|----------------|-----------------------------------|-----|--|--|--|--|--|--------------|----|-----|-------------|--|--|
| 581    | 506:1.<br>.967 |                                   |     |  |  |  |  |  | 99           |    |     |             | 32   | 018)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166642 | ATU028<br>582  | ATL8C4<br>9826:7<br>70..30<br>6   | nap |  |  |  |  |  | g47536<br>48 | 66 | 66  | 0.14        | (AL049<br>751)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |  |
| 166643 | ATU028<br>583  | ATL8C4<br>4749:3<br>652..4<br>781 | nap |  |  |  |  |  | g49268<br>20 | 66 | 321 | 6.5e-<br>33 | (AC004<br>135)<br>T17H7.<br>5<br>[Arabi<br>dopsis<br>thalia<br>na]                     |  |
| 166644 | ATU028<br>584  | ATL8C1<br>179:54<br>9..107        | nap |  |  |  |  |  | g28327<br>05 | 66 | 269 | 8.1e-<br>28 | (AL021<br>713)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 166645 | ATU028<br>585  | ATL8S1<br>8001:2<br>..368         | nap |  |  |  |  |  | g73088<br>8  | 66 | 84  | 0.69        | OCTAPE<br>PTIDE-<br>REPEAT   |  |

|        |               |                           |     |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|---|
| 166646 | ATU028<br>586 | ATL8C7<br>212:47<br>1..45 | nap |  |  |  |  |  |  |  |  | g20626<br>37 | 66 | 102 | 0.0002<br>0 | (U8730<br>7)<br>extrac<br>ytopla<br>smic<br>functi<br>on<br>altern<br>ative<br>sigma<br>factor<br>[Mycob<br>acteri<br>um<br>smegma<br>tis] | PROTEI<br>N T2<br>[Mus<br>muscul<br>us] |
| 166647 | ATU028<br>587 | ATL8C2<br>5249:1<br>..822 | nap |  |  |  |  |  |  |  |  | g40564<br>18 | 66 | 272 | 1.4e-<br>27 | (AC005<br>322)<br>T7A14.<br>5<br>[Arabi<br>dopsis<br>thalia<br>na]   |   |
| 166648 | ATU028<br>588 | ATL8S2<br>1341:2<br>34..1 | nap |  |  |  |  |  |  |  |  | g28275<br>92 | 66 | 109 | 2.0e-<br>07 | (AL021<br>646)<br>hypoth<br>etical<br>protei<br>n<br>Rv3182<br>[Mycob<br>acteri<br>um<br>tuberc  |   |



|        |                                  |                            |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|----------------------------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166653 | ATU028<br>593                    | ..2055                     |     |  |  |  | 7..436                           | 0.96 | g23927<br>65 | 65 | 506  | 7.6e-<br>42  | (AC002<br>534)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        | ATL8C1<br>8267:1<br>818..4<br>46 | nap                        |     |  |  |  | ATL8C1<br>8267:1<br>617..8<br>85 |      |              |    |      |              |  |
| 166654 | ATU028<br>594                    | ATL8C2<br>4321:1<br>..985  | nap |  |  |  | ATL8C2<br>4321:2<br>40..94<br>1  | 0.94 | g45672<br>88 | 65 | 704  | 2.2e-<br>65  | (AC006<br>841)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 166655 | ATU028<br>595                    | ATL8C4<br>9590:1<br>326..1 | nap |  |  |  | ATL8C4<br>9590:1<br>262..2<br>8  | 0.93 | g24628<br>35 | 65 | 1210 | 7.7e-<br>123 | (AF000<br>657)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166656 | ATU028<br>596                    | ATL8C4<br>2972:1           | nap |  |  |  | ATL8C4<br>2972:2                 | 0.93 | g38057<br>69 | 65 | 1448 | 1.8e-<br>146 | (AC005<br>693)   |



|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166657 | ATU028<br>597 | 9..150<br>3                | nap |  |  |  | 2..149<br>7                      | 0.92 | g71929<br>1  | 65 | 2432 | 1.4e-<br>222 | putative<br>mudR-<br>like<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                            |     |  |  |  | ATL8C2<br>0602:4<br>509..6<br>9  |      |              |    |      |              | (U1913<br>4)<br>unknown<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166658 | ATU028<br>598 | ATL8C3<br>7225:1<br>680..1 | nap |  |  |  | ATL8C3<br>7225:1<br>555..4<br>11 | 0.92 | g25062<br>76 | 65 | 934  |              | RUBISCO<br>SUBUNIT<br>BINDING<br>G-<br>PROTEIN<br>N<br>ALPHA<br>SUBUNIT<br>T<br>PRECUR<br>SOR<br>(60 KD<br>CHAPER<br>ONIN<br>ALPHA<br>SUBUNIT<br>T)<br>(CPN-<br>60<br>ALPHA) |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 166659 | ATU028<br>599 | ATL8C2<br>688:12<br>60..23<br>4 | nap |  |  |  |  | ATL8C2<br>688:94<br>5..238      | 0.91 | g31933<br>08 | 65 | 133 | 1.7e-<br>08 | [Arabi<br>dopsis<br>thalia<br>na]  |
| 166660 | ATU028<br>600 | ATL8S1<br>2231:1<br>..525       | nap |  |  |  |  | ATL8S1<br>2231:5<br>13..50      | 0.90 | g17231<br>75 | 65 | 406 | 1.8e-<br>32 | HYPOTH<br>ETICAL<br>30.2<br>KD<br>PROTEI<br>N<br>SLL060<br>1<br>[Synec<br>hocyst<br>is<br>sp.] |
| 166661 | ATU028<br>601 | ATL8C2<br>3849:1<br>..1337      | nap |  |  |  |  | ATL8C2<br>3849:9<br>0..133<br>4 | 0.88 | g48951<br>89 | 65 | 198 | 4.3e-<br>19 | (AC007<br>661)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia                     |

|        |               |                            |     |  |  |  |                                  |      |                         |        |             |                        |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|-------------------------|--------|-------------|------------------------|--|
| 166662 | ATU028<br>602 | ATL8C3<br>0645:1<br>..2818 | nap |  |  |  | ATL8C3<br>0645:3<br>48..28<br>18 | 0.85 | g43888<br>29            | 65     | 2635        | 8.2e-<br>285           | na]<br>(AC006<br>528)<br>putati<br>ve pol<br>polypr<br>oteins<br>with a<br>Zn-<br>finger<br>CCHC<br>type<br>domain<br>(prosi<br>te:QDO<br>C50158<br>) and<br>a DDE<br>integr<br>ase<br>signat<br>ure<br>motif<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166663 | ATU028<br>603 | ATL8C3<br>3346:1<br>706..1 | nap |  |  |  | ATL8C3<br>3346:1<br>706..2<br>78 | 0.84 | g42638<br>30            | 65     | 1853        | 7.5e-<br>160           | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166664 | ATU028<br>604 | ATL8C2<br>4265:1<br>..1473 | nap |  |  |  | ATL8C2<br>4265:7<br>..975        | 0.83 | g47580<br>64,<br>g45876 | 65, 58 | 159,<br>131 | 4.2e-<br>05,<br>0.0003 | 33 kDa<br>transc<br>riptio   |

|        |               |                           |     |  |  |  |  |  |      |              |    |     |             |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|------|--------------|----|-----|-------------|---|
| 166665 | ATU028<br>605 | ATL8S2<br>4484:1<br>..266 | nap |  |  |  |  |  | 0.82 | g11757<br>22 | 65 | 127 | 1.4e-<br>05 | nal<br>co-<br>activa<br>tor<br>[Homo<br>sapien<br>sl;<br>(AC006<br>951)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166666 | ATU028<br>606 | ATL8C2<br>07:1..<br>1171  | nap |  |  |  |  |  | 0.81 | g21911<br>40 | 65 | 495 | 5.1e-<br>41 | (AF007<br>269)<br>contai<br>ns<br>weak<br>simila<br>rity<br>to<br>MYB-<br>relate<br>d   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |          |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|----------|--|
| 166667 | ATU028<br>607 | ATL8C1<br>087:82<br>5...380<br>4 | nap |  |  |  |  | ATL8C1<br>087:82<br>5...378<br>0 | 0.80 | 945811<br>10 | 65 | 4069 | 0.0      | proteins<br>[Arabidopsis thaliana]<br>(AC005825)<br>putative<br>retrotransposon<br>polyprotein<br>[Arabidopsis thaliana] |
| 166668 | ATU028<br>608 | ATL8C3<br>334:17<br>88...26<br>2 | nap |  |  |  |  | ATL8C3<br>334:17<br>00...26<br>2 | 0.78 | g99755       | 65 | 1263 | 2.1e-119 | RNA-directed DNA polymerase (EC 2.7.7.49) - Arabidopsis thaliana retrotransposon Ta1-1 (fragment) [Arabidopsis thaliana] |

|        |               |                           |     |  |  |  |                                 |      |                               |        |             |                             |  |
|--------|---------------|---------------------------|-----|--|--|--|---------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 166669 | ATU028<br>609 | ATL8C4<br>956:28<br>08..1 | nap |  |  |  | ATL8C4<br>956:27<br>28..20<br>6 | 0.77 | g45393<br>45,<br>g45393<br>46 | 65, 49 | 753,<br>967 | 2.6e-<br>78,<br>2.5e-<br>66 | na]<br>(AL035<br>539)<br>hypothen-<br>etrical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AL035<br>539)<br>putative<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166670 | ATU028<br>610 | ATL8C2<br>466:1.<br>.1041 | nap |  |  |  | ATL8C2<br>466:50<br>..1041      | 0.77 | g21295<br>16                  | 65     | 782         | 4.2e-<br>79                 | 1-<br>aminocyclopropane-<br>1-carboxylate<br>oxidase<br>homolog<br>(clone<br>2A6) -<br>Arabidopsis<br>thaliana<br>[Arabi<br>dopsis   |

|        |               |                            |     |  |  |  |  |                                  |      |  |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--|--------------|----|------|--------------|---|
| 166671 | ATU028<br>611 | ATL8C1<br>6719:1<br>137..1 | nap |  |  |  |  | ATL8C1<br>6719:7<br>98..20<br>0  | 0.76 |  | 945444<br>11 | 65 | 1777 | 3.4e-<br>177 | thalia<br>na]<br>(AC006<br>955)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166672 | ATU028<br>612 | ATL8C7<br>847:1.<br>.712   | nap |  |  |  |  | ATL8C7<br>847:17<br>6..711       | 0.76 |  | 943887<br>29 | 65 | 669  | 9.0e-<br>69  | (AC006<br>413)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 166673 | ATU028<br>613 | ATL8C3<br>0724:1<br>439..1 | nap |  |  |  |  | ATL8C3<br>0724:1<br>369..1<br>10 | 0.75 |  | 931231<br>65 | 65 | 377  | 7.2e-<br>38  | ZINC<br>FINGER<br>PROTEI<br>N 183<br>[Homo<br>sapien<br>s]  |
| 166674 | ATU028<br>614 | ATL8C5<br>774:1.<br>.3536  | nap |  |  |  |  | ATL8C5<br>774:40<br>5..353<br>6  | 0.74 |  | 945824<br>62 | 65 | 238  |              | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 166675 | ATU028        | ATL8C8                     | nap |  |  |  |  | ATL8C8                           | 0.74 |  | 942638       | 65 | 1772 | 1.5e-        | (AC006  |

|        |               |                            |     |  |  |  |                                  |              |    |      |              |   |     |   |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|--------------|----|------|--------------|---|-----|---|
| 166676 | 615           | 263:17<br>10..1            |     |  |  |  | 263:17<br>10..28<br>8            | 30           |    |      |              |   | 150 | 067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
|        | ATU028<br>616 | ATL8C1<br>5903:1<br>..773  | nap |  |  |  | ATL8C1<br>5903:5<br>7..744       | 948039<br>60 | 65 | 279  | 1.3e-<br>21  | (AC006<br>202)<br>putati<br>ve<br>carbon<br>ic<br>anhydr<br>ase<br>[Arabi<br>dopsis<br>thalia<br>nal] |     |   |
| 166677 | ATU028<br>617 | ATL8C2<br>7979:1<br>..828  | nap |  |  |  | ATL8C2<br>7979:5<br>..828        | 945443<br>98 | 65 | 1141 |              | (AC007<br>047)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]               |     |   |
| 166678 | ATU028<br>618 | ATL8C2<br>1722:1<br>..1097 | nap |  |  |  | ATL8C2<br>1722:4<br>09..10<br>68 | 945860<br>48 | 65 | 1148 | 3.8e-<br>115 | (AC007<br>020)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis]                      |     |   |



|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 166679 | ATU028<br>619 | ATL8C3<br>1418:1<br>..1997        | nap |  |  |  | ATL8C3<br>1418:2<br>51..19<br>10  | 0.72 | 944163<br>01 | 65 | 2223 | 1.1e-<br>195 | thalia<br>na]<br>(AF105<br>716)<br>gag<br>protei<br>n<br>[zea<br>mays]  |
| 166680 | ATU028<br>620 | ATL8C3<br>2244:5<br>354..8<br>103 | nap |  |  |  | ATL8C3<br>2244:6<br>040..7<br>379 | 0.71 | 936953<br>95 | 65 | 1402 | 4.2e-<br>89  | (AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>e<br>(Pfam:<br>PF0007<br>8 rvt,<br>E=4.3e<br>-08)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166681 | ATU028<br>621 | ATL8C3<br>4052:7<br>51..15<br>95  | nap |  |  |  | ATL8C3<br>4052:7<br>51..14<br>76  | 0.71 | 941159<br>13 | 65 | 1052 | 1.1e-<br>94  | (AF118<br>222)<br>contai<br>ns<br>simila<br>rity<br>to<br>Iron/A<br>scorba<br>te  |

|        |               |                           |     |  |  |  |  |  |      |              |    |      |              |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|------|--------------|----|------|--------------|--|
| 166682 | ATU028<br>622 | ATL8C3<br>3259:1<br>..954 | nap |  |  |  |  |  | 0.70 | g31766<br>69 | 65 | 472  | 7.4e-<br>44  | family<br>of<br>oxidoreductases<br>(Pfam:<br>PF00671,<br>Score=307.1,<br>E=2.2e-88,<br>N=1)<br>[Arabis<br>dopsisthalia<br>na]                              |
| 166683 | ATU028<br>623 | ATL8C5<br>248:19<br>32..1 | nap |  |  |  |  |  | 0.70 | g43253<br>51 | 65 | 2327 | 3.8e-<br>244 | (AC004393)<br>End is cut off.<br>[Arabis<br>dopsisthalia<br>na]<br>(AF128394)<br>similar to<br>Antirrhinum<br>majus (garden<br>snapdragon)<br>TNP2 protein |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166684 | ATU028<br>624 | ATL8C4<br>7981:1<br>..1952 | nap |  |  |  |  | ATL8C4<br>7981:1<br>36..17<br>40 | 0.70 | g33778<br>16 | 65 | 2386 | 6.5e-<br>225 | (GB:X5<br>7297)<br>[Arabi<br>dopsis<br>thalia<br>nal<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 166685 | ATU028<br>625 | ATL8S2<br>3221:1<br>..209  | nap |  |  |  |  | ATL8S2<br>3221:7<br>2..209       | 0.69 | g45389<br>24 | 65 | 179  | 1.0e-<br>15  | (AL049<br>483)<br>V-<br>ATPase<br>G-<br>subuni<br>t like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal   |

|        |               |                            |     |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 166686 | ATU028<br>626 | ATL8C1<br>5265:1<br>417..1 | nap |  |  | ATL8C1<br>5265:1<br>417..3<br>53 | 0.68 | g10830<br>08 | 65 | 237 | 1.4e-<br>24 | carboxypeptidase H (EC 3.4.17.10)<br>56K chain - bovine [I]                                  |
| 166687 | ATU028<br>627 | ATL8C4<br>942:17<br>85..1  | nap |  |  | ATL8C4<br>942:13<br>07..94       | 0.68 | g24438<br>79 | 65 | 745 | 4.6e-<br>86 | (AC002294)<br>similar to jasmonate induced protein gp Y11483 1883006 [Arabi dopsis thaliana] |
| 166688 | ATU028<br>628 | ATL8C4<br>4199:8<br>57..1  | nap |  |  | ATL8C4<br>4199:6<br>71..38       | 0.68 | g23927<br>63 | 65 | 334 | 2.7e-<br>29 | (AC002534)<br>hypothetical protein [Arabi dopsis thaliana]                                   |
| 166689 | ATU028<br>629 | ATL8C3<br>812:47           | nap |  |  | ATL8C3<br>812:50                 | 0.67 | g28946<br>07 | 65 | 751 | 1.6e-<br>79 | (AL021889)   |

|        |                            |                                   |     |  |  |  |                                   |      |              |    |      |              |   |
|--------|----------------------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 166690 | ATU028<br>630              | 9..108<br>1                       | nap |  |  |  | 4..949                            | 0.67 | g28322<br>41 | 65 | 2332 | 1.9e-<br>177 | NAM<br>(no<br>apical<br>merist<br>em) -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        | ATL8C2<br>3311:4<br>247..1 |                                   |     |  |  |  | ATL8C2<br>3311:3<br>912..1<br>69  |      |              |    |      |              | (AF030<br>864)<br>nonpho<br>totrop<br>ic<br>hypoco<br>tyl 1<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 166691 | ATU028<br>631              | ATL8C3<br>0569:1<br>076..1        | nap |  |  |  | ATL8C3<br>0569:1<br>076..1<br>10  | 0.67 | g45126<br>89 | 65 | 354  | 1.8e-<br>40  | (AC006<br>931)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 166692 | ATU028<br>632              | ATL8C4<br>3942:2<br>445..1<br>148 | nap |  |  |  | ATL8C4<br>3942:2<br>362..1<br>148 | 0.66 | g43887<br>32 | 65 | 647  |              | (AC006<br>413)<br>putati<br>ve<br>Athila<br>retro<br>element  |

|        |               |                                  |     |  |  |  |  |                                 |      |  |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|---------------------------------|------|--|--------------|----|-----|-------------|--|
| 166693 | ATU028<br>633 | ATL8C4<br>7887:7<br>36..10<br>76 | nap |  |  |  |  | ATL8C4<br>7887:9<br>26..84<br>7 | 0.66 |  | g42181<br>25 | 65 | 365 | 2.2e-<br>08 | ORF 2<br>prote<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 166694 | ATU028<br>634 | ATL8C4<br>5847:8<br>06..24<br>8  | nap |  |  |  |  | ATL8C4<br>5847:7<br>97..55<br>8 | 0.65 |  | g33675<br>89 | 65 | 721 | 4.4e-<br>37 | (AL031<br>135)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 166695 | ATU028<br>635 | ATL8C4<br>1753:5<br>0..675       | nap |  |  |  |  | ATL8C4<br>1753:1<br>07..64<br>9 | 0.65 |  | g33866<br>02 | 65 | 932 | 1.5e-<br>94 | (AC004<br>665)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166696 | ATU028<br>636 | ATL8S1<br>7654:3<br>97..1        | nap |  |  |  |  | ATL8S1<br>7654:3<br>97..10      | 0.65 |  | g11691<br>61 | 65 | 107 | 2.1e-<br>08 | CYTOCH<br>ROME<br>C4 [ ]   |

|        |               |                            |     |  |  |  |   |                                 |      |                              |        |             |                             |   |
|--------|---------------|----------------------------|-----|--|--|--|---|---------------------------------|------|------------------------------|--------|-------------|-----------------------------|---|
| 166697 | ATU028<br>637 | ATL8C1<br>3195:1<br>..819  | nap |  |  |  | 8 | ATL8C1<br>3195:3<br>28..71<br>2 | 0.64 | g45389<br>34                 | 65     | 881         | 7.4e-<br>80                 | (AL049<br>483)<br>putati<br>ve<br>leucin<br>e-<br>rich-<br>repeat<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166698 | ATU028<br>638 | ATL8C3<br>2275:1<br>067..1 | nap |  |  |  |   | ATL8C3<br>2275:9<br>40..22<br>3 | 0.62 | g47739<br>18                 | 65     | 1505        | 2.3e-<br>135                | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 166699 | ATU028<br>639 | ATL8C3<br>1579:9<br>63..1  | nap |  |  |  |   | ATL8C3<br>1579:8<br>45..22<br>1 | 0.62 | g46461<br>97                 | 65     | 867         | 1.9e-<br>91                 | (AC007<br>230)<br>T23K8.<br>5<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166700 | ATU028<br>640 | ATL8S2<br>1289:1<br>..572  | nap |  |  |  |   | ATL8S2<br>1289:6<br>5..511      | 0.61 | g17115<br>82,<br>g13502<br>8 | 65, 32 | 284,<br>283 | 1.4e-<br>14,<br>1.2e-<br>24 | SUCCIN<br>YL-COA<br>SYNTHE<br>TASE<br>BETA<br>CHAIN   |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 166701 | ATU028<br>641 | ATL8C2<br>1591:9<br>08..44<br>2  | nap |  |  |  |  | ATL8C2<br>1591:7<br>54..46<br>3  | 0.61 | g45443<br>84 | 65 | 175  | 3.4e-<br>12  | (SCS-<br>BETA)<br>[Pseudomonas<br>aeruginosa];<br>SUCCINYL-COA<br>SYNTHETASE<br>ALPHA CHAIN<br>(SCS-<br>ALPHA)<br>[Escherichia<br>coli] |
| 166702 | ATU028<br>642 | ATL8C4<br>084:11<br>94..21<br>90 | nap |  |  |  |  | ATL8C4<br>084:11<br>94..18<br>54 | 0.61 | g32506<br>84 | 65 | 1116 | 1.5e-<br>115 | (AL024<br>486)<br>chitinase -<br>like protein<br>[Arabis<br>dopsis<br>thaliana]   |
| 166703 | ATU028<br>643 | ATL8C4<br>8451:5                 | nap |  |  |  |  | ATL8C4<br>8451:5                 | 0.59 | g44159<br>22 | 65 | 865  | 9.9e-<br>91  | (AC006<br>282)<br>[Arabis<br>dopsis<br>thaliana]  |





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|--------|---------------|---------------------------|-----|--|--|--|--|----------------------------|------|--------------|----|-----|-------------|---|---|
| 166705 | ATU028<br>645 | ATL8S1<br>4011:5<br>03..1 | nap |  |  |  |  | ATL8S1<br>4011:5<br>03..69 | 0.58 | g24995<br>48 | 65 | 151 | 3.5e-<br>13 | PROBAB<br>LE LOW<br>MOLECU<br>LAR<br>WEIGHT<br>PROTEI<br>N-<br>TYROSI<br>NE-<br>PHOSPH<br>ATASE<br>YCCY<br>[Esche<br>richia<br>coli.] | NSFERA<br>SE)<br>(CDP-<br>DAG<br>SYNTHA<br>SE)<br>[Pseud<br>omonas<br>aerugi<br>nosa] |
| 166706 | ATU028<br>646 | ATL8C1<br>9845:1<br>..783 | nap |  |  |  |  | ATL8C1<br>9845:6<br>5..714 | 0.57 | g17031<br>15 | 65 | 939 | 1.1e-<br>89 | ACTIN<br>3<br>[Arabi<br>dopsis<br>thalia<br>na]   |   |
| 166707 | ATU028<br>647 | ATL8C4<br>260:1.<br>.718  | nap |  |  |  |  | ATL8C4<br>260:12<br>8..718 | 0.55 | g18711<br>84 | 65 | 308 | 4.9e-<br>33 | (U9043<br>9)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia  |   |

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|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166708 | ATU028<br>648 | ATL8C2<br>8253:6<br>09..23       | nap |  |  |  | ATL8C2<br>8253:2<br>47..58       | 0.54 | g42630<br>54 | 65 | 355  | 5.9e-<br>38  | na]<br>(AC005<br>142)<br>hypothe-<br>tical<br>protein<br>[Arabi-<br>dopsis<br>thalia<br>na]  |
| 166709 | ATU028<br>649 | ATL8C3<br>8135:2<br>568..1       | nap |  |  |  | ATL8C3<br>8135:2<br>068..2<br>90 | 0.53 | g10978<br>77 | 65 | 531  | 1.9e-<br>44  | aminol-<br>evulin-<br>ate<br>dehydr-<br>atase<br>[Lycop-<br>ersico-<br>n<br>escule-<br>ntum] |
| 166710 | ATU028<br>650 | ATL8C4<br>8393:1<br>168..5<br>42 | nap |  |  |  | ATL8C4<br>8393:1<br>168..5<br>42 | 0.52 | g48369<br>34 | 65 | 410  | 9.3e-<br>47  | (AC006<br>085)<br>Hypothe-<br>tical<br>protein<br>[Arabi-<br>dopsis<br>thalia<br>na]         |
| 166711 | ATU028<br>651 | ATL8C3<br>652:26<br>88..1        | nap |  |  |  | ATL8C3<br>652:24<br>57..36<br>8  | 0.52 | g45859<br>36 | 65 | 3077 | 7.5e-<br>296 | (AC007<br>211)<br>putati-<br>ve<br>helica-<br>se<br>[Arabi-<br>dopsis<br>thalia<br>na]       |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 166712 | ATU028<br>652 | ATL8C5<br>59:684<br>..1953        | nap |  |  |  | ATL8C5<br>59:684<br>..1783        | 0.50 | g44328<br>20 | 65 | 1364 | 1.3e-<br>101 | na]<br>(AC006<br>593)<br>putati<br>ve<br>glutam<br>yl<br>tRNA<br>reduct<br>ase<br>HEMA2<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 166713 | ATU028<br>653 | ATL8C3<br>8809:1<br>535..2<br>909 | nap |  |  |  | ATL8C3<br>8809:2<br>350..2<br>909 | 0.49 | g40068<br>94 | 65 | 336  | 1.7e-<br>32  | (Z9970<br>8)<br>homeod<br>omain<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166714 | ATU028<br>654 | ATL8S4<br>644:1.<br>.157          | nap |  |  |  | ATL8S4<br>644:54<br>..157         | 0.49 | g25000<br>21 | 65 | 231  | 5.5e-<br>19  | PHOSPH<br>ORIBOS<br>YLAMIN<br>OIMIDA<br>ZOLECA<br>RBOXAM<br>IDE<br>FORMYL<br>TRANSF<br>ERASE<br>(AICAR<br>TRANSF<br>ORMYLA<br>SE) /<br>IMP |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |  |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--|--------------|----|------|--------------|--|
| 166715 | ATU028<br>655 | ATL8C2<br>6248:1<br>..2352       | nap |  |  |  |  |  |  | ATL8C2<br>6248:1<br>39..19<br>10 | 0.49 |  | g49268<br>28 | 65 | 272  | 6.6e-<br>17  | CYCLOH<br>YDROLA<br>SE<br>(INOSI<br>NICASE<br>) (IMP<br>SYNTH<br>TASE)<br>(ATIC)<br>[Chrom<br>atium<br>vinosu<br>m]                                  |
| 166716 | ATU028<br>656 | ATL8C1<br>664:1.<br>.2075        | nap |  |  |  |  |  |  | ATL8C1<br>664:77<br>0..192<br>7  | 0.48 |  | g44163<br>02 | 65 | 3434 | 8.5e-<br>302 | (AC004<br>135)<br>T17H7.<br>13<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AF105<br>716)<br>copia-<br>type<br>pol<br>polypr<br>otein<br>[Zea:<br>mays] |
| 166717 | ATU028<br>657 | ATL8C8<br>368:41<br>04..25<br>73 | nap |  |  |  |  |  |  | ATL8C8<br>368:35<br>80..32<br>53 | 0.46 |  | g68842<br>3  | 65 | 100  | 0.0016       | (D2645<br>3)<br>tumor-<br>relate<br>d<br>protei<br>n<br>[Nicot<br>iana<br>glauca   |



|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 166720 | ATU028<br>660 | ATL8S5<br>523:37<br>1..60         | nap |  |  |  |  | ATL8S5<br>523:30<br>8..257        | 0.42 | g12885<br>5  | 65 | 275 | 2.2e-<br>23 | gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 166721 | ATU028<br>661 | ATL8S1<br>2441:6<br>88..1         | nap |  |  |  |  | ATL8S1<br>2441:6<br>04..16<br>2   | 0.41 | g35401<br>90 | 65 | 579 | 3.7e-<br>38 | (AC004<br>122)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166722 | ATU028<br>662 | ATL8C4<br>9191:1<br>472..2<br>406 | nap |  |  |  |  | ATL8C4<br>9191:1<br>487..2<br>351 | 0.41 | g42042<br>95 | 65 | 176 | 9.0e-<br>18 | (AC003<br>027)<br>lcl pr<br>t_seq<br>No<br>defini<br>tion<br>line<br>found             |

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|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166723 | ATU028<br>663 | ATL8C2<br>3224:5<br>68..18<br>72 | nap |  |  |  |  |  | ATL8C2<br>3224:5<br>71..17<br>02 | 0.40 | g32362<br>53 | 65 | 796  | 1.1e-<br>86  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC004<br>684)<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166724 | ATU028<br>664 | ATL8C2<br>3434:1<br>..1934       | nap |  |  |  |  |  |                                  |      | g47739<br>08 | 65 | 1694 | 1.0e-<br>161 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166725 | ATU028<br>665 | ATL8C5<br>018:75<br>2..1         | nap |  |  |  |  |  |                                  |      | g33425<br>52 | 65 | 324  | 5.7e-<br>38  | (AF076<br>979)<br>putati<br>ve<br>strict<br>osidin<br>e<br>syntha<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]                               |



|        |               |                                   |     |  |  |  |  |  |  |              |    |      |              |   |
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| 166726 | ATU028<br>666 | ATL8C3<br>9875:1<br>667..1        | nap |  |  |  |  |  |  | g44327<br>97 | 65 | 1131 | 3.1e-<br>120 | (AC006<br>437)<br>putati<br>ve pol<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166727 | ATU028<br>667 | ATL8C1<br>0123:1<br>061..1<br>797 | nap |  |  |  |  |  |  | g32928<br>17 | 65 | 534  |              | (AL031<br>018)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]         |
| 166728 | ATU028<br>668 | ATL8C3<br>2714:1<br>..2064        | nap |  |  |  |  |  |  | g36458<br>99 | 65 | 3032 | 7.7e-<br>291 | (U6840<br>8) 5'<br>end<br>not<br>determ<br>ined<br>experi<br>mental<br>ly [Zea<br>mays]     |
| 166729 | ATU028<br>669 | ATL8C2<br>6593:1<br>..1808        | nap |  |  |  |  |  |  | g54897<br>6  | 65 | 82   | 0.96         | SUPPRE<br>SSOR<br>PROTEI<br>N SRP40<br>[Sacch<br>aromyc<br>es cerevi]                       |





|        |               |                                   |     |  |  |  |  |  |  |  |  |  |                               |        |               |                              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|-------------------------------|--------|---------------|------------------------------|---|
| 166737 | ATU028<br>677 | ATL8C2<br>0812:4<br>029..5<br>274 | nap |  |  |  |  |  |  |  |  |  | g47739<br>20                  | 65     | 922           | 3.5e-<br>96                  | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 166738 | ATU028<br>678 | ATL8C4<br>21:650<br>..1984        | nap |  |  |  |  |  |  |  |  |  | g42637<br>66                  | 65     | 1544          | 1.4e-<br>142                 | (AC006<br>218)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 166739 | ATU028<br>679 | ATL8C2<br>762:1.<br>.2798         | nap |  |  |  |  |  |  |  |  |  | g47739<br>19,<br>g45672<br>94 | 65, 48 | 1409,<br>1377 | 4.7e-<br>98,<br>1.7e-<br>119 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006 |

|        |               |                            |     |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 166740 | ATU028<br>680 | ATL8S1<br>5323:1<br>..616  | nap |  |  |  |  |  |  | g80943<br>2  | 65 | 706 | 1.6e-<br>57 | 918)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 166741 | ATU028<br>681 | ATL8C4<br>8557:1<br>..1032 | nap |  |  |  |  |  |  | g72726<br>4  | 65 | 520 | 0.9996      | (U1879<br>1)<br>hydrox<br>yproli<br>ne-<br>rich<br>glycop<br>rotein<br>precu<br>sor<br>[Phase<br>olus<br>vulgar<br>is] |
| 166742 | ATU028<br>682 | ATL8C1<br>4461:1<br>067..6 | nap |  |  |  |  |  |  | g22535<br>79 | 65 | 106 | 4.8e-<br>09 | (U7872<br>1)<br>hypoth   |

|        |               |    |                            |     |  |  |  |  |  |  |  |  |              |    |      |             |   |
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| 166743 | ATU028<br>683 | 71 | ATL8S2<br>1310:5<br>58..79 | nap |  |  |  |  |  |  |  |  | g17300<br>31 | 65 | 238  | 1.5e-<br>19 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 166744 | ATU028<br>684 |    | ATL8S2<br>9669:3<br>55..1  | nap |  |  |  |  |  |  |  |  | g39148<br>51 | 65 | 97   | 3.0e-<br>09 | CHLORO<br>PLAST<br>30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S4<br>[Hymen<br>ocalli<br>s<br>littor<br>alis] |
| 166745 | ATU028        |    | ATL8C4                     | nap |  |  |  |  |  |  |  |  | g13058       | 65 | 1196 | 3.2e-       | RETROV  |

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|        | 685           | 8531:2<br>529..1                |     |  |  |  |  |  | 2            |    |     |             | 99  | IRUS-<br>RELATE<br>D POL<br>POLYPR<br>OTEIN<br>FROM<br>TRANSP<br>OSON<br>TNT 1-<br>94<br>[Nicot<br>iana<br>tabacu<br>m] |
| 166746 | ATU028<br>686 | ATL8C4<br>0788:7<br>82..40<br>0 | nap |  |  |  |  |  | g28326<br>22 | 65 | 295 | 5.1e-<br>28 | (AL021<br>711)<br>cyclic<br>phosph<br>odiest<br>erase<br>- like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 166747 | ATU028<br>687 | ATL8S1<br>1364:5<br>39..32      | nap |  |  |  |  |  | g18061<br>61 | 65 | 277 | 9.6e-<br>23 | (Z8439<br>5)<br>hypoth<br>etical<br>protei<br>n<br>Rv0695<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]        |   |

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|--------|---------------|---------------------------|-----|--|--|--|----------------------------|------|--------------|----|-----|--|--|
| 166748 | ATU028<br>688 | ATL8C1<br>1495:5<br>41..1 | nap |  |  |  |                            |      | g54792<br>7  | 65 | 697 | 6.0e-<br>62  | MULTIP<br>LE<br>SUGAR-<br>BINDIN<br>G<br>TRANSP<br>ORT<br>SYSTEM<br>PERMEA<br>SE<br>PROTEI<br>N MSG<br>[Strep<br>tococc<br>us<br>mutans<br>] |
| 166749 | ATU028<br>689 | ATL8S1<br>7787:5<br>65..1 | nap |  |  |  | ATL8S1<br>7787:5<br>01..9  | 0.98 | g33223<br>34 | 64 | 215 | 1.9e-<br>10  | (AE001<br>192)<br>sugar<br>ABC<br>transp<br>orter,<br>permea<br>se<br>protei<br>n<br>(y4oQ)<br>[Trepo<br>nema<br>pallid<br>um]               |
| 166750 | ATU028<br>690 | ATL8S6<br>102:1.<br>.557  | nap |  |  |  | ATL8S6<br>102:12<br>9..540 | 0.97 | g27726<br>19 | 64 | 342 | (U9335<br>5)<br>hypoth<br>etical<br>32.1<br>kDa<br>protei<br>n |  |



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| 166751 | ATU028<br>691 | ATL8C4<br>3063:1<br>02..20<br>73 | nap |  |  |  |  | ATL8C4<br>3063:1<br>02..18<br>61 | 0.97 | g45859<br>98 | 64 | 2678 | 5.0e-<br>262 | (AC005<br>287)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166752 | ATU028<br>692 | ATL8C3<br>6121:1<br>..725        | nap |  |  |  |  | ATL8C3<br>6121:2<br>27..72<br>5  | 0.94 | g45080<br>76 | 64 | 189  | 5.8e-<br>08  | (AC005<br>882)<br>55659<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 166753 | ATU028<br>693 | ATL8S6<br>54:279<br>..1          | nap |  |  |  |  | ATL8S6<br>54:279<br>..84         | 0.94 | g35823<br>39 | 64 | 313  | 9.6e-<br>30  | (AC005<br>496)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 166754 | ATU028<br>694 | ATL8C2<br>168:69<br>4..129       | nap |  |  |  |  | ATL8C2<br>168:56<br>3..129       | 0.94 | g46782<br>10 | 64 | 371  | 2.2e-<br>25  | (AC007<br>134)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 166755 | ATU028<br>695 | ATL8S2<br>1584:1<br>..568        | nap |  |  |  | ATL8S2<br>1584:1<br>44..56<br>8  | 0.92 |  | g26746<br>5  | 64 | 167  | 1.5e-<br>12  | na]<br>HYPOTH<br>ETICAL<br>19.0<br>KD<br>PROTEI<br>N IN<br>COBS<br>5'REGI<br>ON<br>(ORF2)<br>[Pseud<br>omonas<br>denitr<br>ifican<br>s] |
| 166756 | ATU028<br>696 | ATL8C4<br>9261:1<br>..4127       | nap |  |  |  | ATL8C4<br>9261:1<br>78..41<br>27 | 0.92 |  | g47755<br>78 | 64 | 1646 | 9.7e-<br>153 | (AJ238<br>786)<br>MUS2<br>protei<br>n<br>[Zea<br>mays]  |
| 166757 | ATU028<br>697 | ATL8C2<br>0131:1<br>..1029       | nap |  |  |  | ATL8C2<br>0131:2<br>06..10<br>02 | 0.91 |  | g30471<br>26 | 64 | 1102 |              | (AF058<br>919)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166758 | ATU028<br>698 | ATL8C3<br>8824:7<br>53..19<br>47 | nap |  |  |  | ATL8C3<br>8824:7<br>53..19<br>04 | 0.91 |  | g44553<br>56 | 64 | 549  | 4.6e-<br>55  | (AL035<br>524)<br>putati<br>ve<br>protei<br>n   |

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|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166759 | ATU028<br>699 | ATL8C3<br>5016:1<br>445..1 | nap |  |  |  | ATL8C3<br>5016:1<br>445..1<br>30 | 0.90 | g44903<br>16 | 64 | 407  | 2.9e-<br>35  | [Arabi<br>dopsis<br>thalia<br>na]<br>(Al035<br>678)<br>nucell<br>in-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166760 | ATU028<br>700 | ATL8C3<br>125:1.<br>.1042  | nap |  |  |  | ATL8C3<br>125:31<br>6..793       | 0.90 | g35823<br>16 | 64 | 181  | 4.4e-<br>14  | (AC005<br>496)<br>DNAJ-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166761 | ATU028<br>701 | ATL8C1<br>5591:3<br>757..1 | nap |  |  |  | ATL8C1<br>5591:3<br>757..6<br>56 | 0.89 | g44328<br>41 | 64 | 1538 | 1.9e-<br>113 | (AC006<br>283)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166762 | ATU028<br>702 | ATL8C9<br>803:1.<br>.1415  | nap |  |  |  | ATL8C9<br>803:38<br>3..111<br>4  | 0.89 | g45672<br>94 | 64 | 1397 | 9.0e-<br>142 | (AC006<br>918)<br>putati<br>ve<br>Athila   |

|        |               |                                  |     |  |  |  |  |  |  |      |              |    |     |             |   |  |
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| 166763 | ATU028<br>703 | ATL8C6<br>404:10<br>66..1        | nap |  |  |  |  |  |  | 0.88 | g39534<br>74 | 64 | 295 | 2.9e-<br>30 | (AC002<br>328)<br>F2202.<br>19<br>[Arabi<br>dopsis<br>thalia<br>na]   | retro<br>lment<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166764 | ATU028<br>704 | ATL8C4<br>1049:1<br>812..4<br>99 | nap |  |  |  |  |  |  | 0.87 | g41159<br>42 | 64 | 946 | 6.9e-<br>91 | (AF118<br>223)<br>contai<br>ns<br>simila<br>rity<br>to<br>eukary<br>otic<br>protei<br>n<br>kinase<br>domain<br>s<br>(Pfam:<br>PF0006<br>9,<br>score=<br>238.4,<br>E= 1e-<br>67,<br>N=1)<br>and EF |  |

|        |               |                                   |     |  |  |  |  |  |  |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|------|--------------|----|------|--------------|--|
| 166765 | ATU028<br>705 | ATL8C7<br>223:62<br>9..193<br>2   | nap |  |  |  |  |  |  | 0.86 | g41159<br>21 | 64 | 1157 | 9.2e-<br>111 | hand<br>domains<br>(Pfam:<br>PF00036,<br>score=<br>109.0,<br>E=8.9e-<br>29,<br>N=5)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166766 | ATU028<br>706 | ATL8C4<br>292:17<br>25..1         | nap |  |  |  |  |  |  | 0.84 | g37639<br>20 | 64 | 612  | 6.9e-<br>65  | (AF118<br>222)<br>F3H7.4<br>gene<br>product<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166767 | ATU028<br>707 | ATL8C1<br>7019:2<br>347..6<br>830 | nap |  |  |  |  |  |  | 0.83 | g42638<br>31 | 64 | 3768 | 0.0          | (AC004<br>450)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |  |
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| 166768 | ATU028<br>708 | ATL8S2<br>2731:1<br>..557         | nap |  |  |  |  | ATL8S2<br>2731:4<br>6..517        | 0.83 | g17997<br>02 | 64 | 576  | 7.4e-<br>56  | e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166769 | ATU028<br>709 | ATL8C1<br>2165:4<br>323..1<br>821 | nap |  |  |  |  | ATL8C1<br>2165:4<br>228..3<br>461 | 0.82 | g44328<br>02 | 64 | 2472 | 8.6e-<br>219 | (D9086<br>3)<br>AMIDOP<br>HOSPHO<br>RIBOSY<br>LTRANS<br>FERASE<br>(EC<br>2.4.2.<br>14)<br>(GLUTA<br>MINE<br>PHOSPH<br>ORIBOS<br>YLPYRO<br>PHOSPH<br>ATE<br>AMIDOT<br>RANSFE<br>RASE)<br>(ATASE<br>).<br>[Esche<br>richia<br>coli]<br>(AC006<br>437)<br>putati<br>ve pol<br>ypr<br>otein,<br>5' |

|        |               |                                   |     |  |  |  |  |                                   |      |  |              |    |      |              |   |
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| 166770 | ATU028<br>710 | ATL8C1<br>3615:1<br>905..1        | nap |  |  |  |  | ATL8C1<br>3615:1<br>841..2<br>40  | 0.82 |  | g48368<br>72 | 64 | 1467 | 2.2e-<br>137 | partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC007<br>260)<br>lcl pr<br>t_seq<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166771 | ATU028<br>711 | ATL8C9<br>94:1..<br>2181          | nap |  |  |  |  | ATL8C9<br>94:116<br>..1215        | 0.81 |  | g12356<br>80 | 64 | 1006 | 2.1e-<br>101 | (U4869<br>8)<br>recept<br>or<br>serine<br>/threo<br>nine<br>kinase<br>PR5K<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166772 | ATU028<br>712 | ATL8C1<br>9427:5<br>088..3<br>654 | nap |  |  |  |  | ATL8C1<br>9427:4<br>769..3<br>711 | 0.81 |  | g24438<br>75 | 64 | 1102 | 4.6e-<br>99  | (AC002<br>294)<br>amino<br>acid<br>permea<br>se<br>[Arabi<br>dopsis   |

|        |               |                                   |     |  |  |  |  |  |                                   |      |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--|--------------|----|------|--------------|---|
| 166773 | ATU028<br>713 | ATL8C1<br>2589:8<br>133..4<br>131 | nap |  |  |  |  |  | ATL8C1<br>2589:6<br>150..4<br>615 | 0.80 |  | g42635<br>44 | 64 | 3144 | 0.0          | thalia<br>na]<br>(AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166774 | ATU028<br>714 | ATL8C2<br>7419:1<br>48..42<br>2   | nap |  |  |  |  |  | ATL8C2<br>7419:2<br>86..17<br>5   | 0.80 |  | g21480<br>45 | 64 | 71   |              | self-<br>incomp<br>atibil<br>ity<br>protei<br>n S3<br>precur<br>sor -<br>Papave<br>r<br>rheas<br>[Papav<br>er<br>rheas<br>]             |
| 166775 | ATU028<br>715 | ATL8C4<br>9941:1<br>..1717        | nap |  |  |  |  |  | ATL8C4<br>9941:3<br>62..12<br>00  | 0.80 |  | g42635<br>43 | 64 | 1986 | 5.9e-<br>200 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei  |



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| 166776 | ATU028<br>716 | ATL8C5<br>461:36<br>63...43<br>6   | nap |  |  |  |  | ATL8C5<br>461:34<br>89...43<br>6   | 0.80 | g19316<br>49 | 64 | 1787 | 2.5e-<br>121 | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(U9597<br>3) DNA<br>helica<br>se<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166777 | ATU028<br>717 | ATL8C1<br>3563:1<br>825...3<br>961 | nap |  |  |  |  | ATL8C1<br>3563:2<br>425...3<br>635 | 0.80 | g31526<br>11 | 64 | 2348 | 6.0e-<br>220 | (AC004<br>482)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 166778 | ATU028<br>718 | ATL8C1<br>4398:2<br>241...4<br>136 | nap |  |  |  |  | ATL8C1<br>4398:2<br>635...4<br>136 | 0.78 | g48952<br>24 | 64 | 677  | 2.4e-<br>50  | (AC007<br>660)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 166779 | ATU028<br>719 | ATL8C2<br>2477:1<br>940...1        | nap |  |  |  |  | ATL8C2<br>2477:1<br>804...2        | 0.77 | g38314<br>44 | 64 | 1470 | 1.9e-<br>161 | (AC005<br>819)<br>putati  |

|        |               |                            |     |  |  |  |  |                           |                            |              |              |     |             |  |  |   |
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| 166780 | ATU028<br>720 | ATL8C9<br>111:25<br>3..614 | nap |  |  |  |  | 90                        | ATL8C9<br>111:41<br>7..585 | 0.77         | g46462<br>20 | 64  | 106         |  |  | ve'<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 166781 | ATU028<br>721 | ATL8C4<br>1053:1<br>..890  | nap |  |  |  |  | ATL8C4<br>1053:4<br>..890 | 0.76                       | g22448<br>35 | 64           | 897 | 7.1e-<br>93 |  |  | (Z9733<br>7)<br>protei<br>n<br>kinase<br>homolo<br>g<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166782 | ATU028<br>722 | ATL8C8<br>730:72<br>7..1   | nap |  |  |  |  | ATL8C8<br>730:64<br>7..42 | 0.76                       | g47411<br>89 | 64           | 839 | 7.8e-<br>76 |  |  | (AL049<br>746)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 166783 | ATU028        | ATL8C1                     | nap |  |  |  |  | ATL8C1                    | 0.75                       | g22447       | 64           | 216 | 3.2e-       |  |  | (Z9733)   |

|        |                        |                                   |     |  |  |  |  |                                   |      |    |     |             |   |
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| 723    | 326:61<br>41..34<br>60 |                                   |     |  |  |  |  | 326:47<br>81..34<br>60            | 75   |    |     | 16          | 5)<br>salt-<br>induci<br>ble<br>protei<br>n<br>homolo<br>g<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166784 | ATU028<br>724          | ATL8S4<br>093:42<br>4..716        | nap |  |  |  |  | ATL8S4<br>093:42<br>4..531        | 0.75 | 64 | 157 | 2.1e-<br>13 | (AL049<br>746)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 166785 | ATU028<br>725          | ATL8C1<br>6868:2<br>860..1<br>765 | nap |  |  |  |  | ATL8C1<br>6868:2<br>754..1<br>765 | 0.74 | 64 | 670 | 1.1e-<br>66 | (AC006<br>300)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 166786 | ATU028<br>726          | ATL8C2<br>6077:9<br>84..27<br>5   | nap |  |  |  |  | ATL8C2<br>6077:7<br>89..27<br>5   | 0.73 | 64 | 583 | 7.3e-<br>45 | (AF033<br>536)<br>putati<br>ve<br>zinc<br>transp<br>orter<br>[Arabi                             |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 166787 | ATU028<br>727 | ATL8C3<br>4718:1<br>..1490       | nap |  |  |  |  | ATL8C3<br>4718:9<br>1..146<br>9  | 0.73 | g28646<br>09 | 64 | 2232 | 9.5e-<br>235 | dopsis<br>thalia<br>na]<br>(AL021<br>811)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 166788 | ATU028<br>728 | ATL8C1<br>1752:1<br>21..32<br>54 | nap |  |  |  |  | ATL8C1<br>1752:3<br>35..31<br>16 | 0.73 | g47411<br>92 | 64 | 2066 | 2.8e-<br>157 | (AL049<br>746)<br>ABC<br>transp<br>orter-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 166789 | ATU028<br>729 | ATL8C9<br>646:12<br>04..1        | nap |  |  |  |  | ATL8C9<br>646:12<br>04..68       | 0.73 | g39804<br>10 | 64 | 1900 | 2.3e-<br>164 | (AC004<br>561)<br>putati<br>ve<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166790 | ATU028        | ATL8S9                           | nap |  |  |  |  | ATL8S9                           | 0.72 | g45443       | 64 | 401  | 2.4e-        | (AC006  |

|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |    |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|----|--|
| 166791 | 730           | 20:123<br>..586            |     |  |  |  | 20:290<br>..393                  | 80   |              |    |      |              | 39 | 920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal]                     |
|        | ATU028<br>731 | ATL8S2<br>0348:5<br>55..77 | nap |  |  |  | ATL8S2<br>0348:5<br>10..27<br>4  | 0.72 | g25061<br>56 | 64 | 203  | 2.7e-<br>18  |    | HYPOTH<br>ETICAL<br>OXIDOR<br>EDUCTA<br>SE IN<br>PBPG-<br>CDD<br>INTERG<br>ENIC<br>REGION<br>[Esche<br>richia<br>coli] |
| 166792 | ATU028<br>732 | ATL8C4<br>9790:1<br>..2524 | nap |  |  |  | ATL8C4<br>9790:9<br>66..24<br>18 | 0.72 | g47340<br>13 | 64 | 1413 | 2.9e-<br>144 |    | (AC007<br>112)<br>putati<br>ve<br>TNP1<br>of the<br>Taml<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>nal]       |
| 166793 | ATU028<br>733 | ATL8C2<br>3465:3           | nap |  |  |  | ATL8C2<br>3465:3                 | 0.70 | g48503<br>90 | 64 | 1302 | 1.5e-<br>117 |    | (AC007<br>357)   |



|        |               |                                  |     |  |  |  |  |                                  |      |  |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--|--------------|----|------|--------------|---|
| 166796 | ATU028<br>736 | ATL8C3<br>0573:1<br>271..1       | nap |  |  |  |  | ATL8C3<br>0573:1<br>008..1<br>7  | 0.69 |  | g46783<br>08 | 64 | 830  | 6.3e-<br>82  | protein<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 166797 | ATU028<br>737 | ATL8C5<br>540:24<br>4..307<br>4  | nap |  |  |  |  | ATL8C5<br>540:69<br>2..306<br>3  | 0.68 |  | g46462<br>08 | 64 | 2528 | 1.5e-<br>248 | (AC007<br>230)<br>Contai<br>ns<br>simila<br>rity<br>to<br>F13P17<br>.8 [] |
| 166798 | ATU028<br>738 | ATL8C1<br>3787:1<br>255..1<br>48 | nap |  |  |  |  | ATL8C1<br>3787:1<br>015..1<br>48 | 0.68 |  | g48503<br>96 | 64 | 712  | 7.3e-<br>77  | (AC007<br>357)<br>F3F19.<br>15<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 166799 | ATU028<br>739 | ATL8C1<br>7580:1<br>5..560       | nap |  |  |  |  | ATL8C1<br>7580:1<br>5..536       | 0.68 |  | g32362<br>46 | 64 | 455  | 3.8e-<br>45  | (AC004<br>684)<br>putati<br>ve<br>expans<br>in<br>protei                  |

|        |               |                            |     |  |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 166800 | ATU028<br>740 | ATL8C4<br>7575:1<br>..748  | nap |  |  |  |  |  | ATL8C4<br>7575:1<br>06..74<br>8  | 0.67 | g28946<br>07 | 64 | 111  | 1.9e-<br>07  | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL021<br>889)<br>NAM<br>(no<br>apical<br>merist<br>em) -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166801 | ATU028<br>741 | ATL8C1<br>5085:1<br>..1381 | nap |  |  |  |  |  | ATL8C1<br>5085:4<br>37..13<br>74 | 0.66 | g21905<br>59 | 64 | 1307 | 3.7e-<br>133 | (AC001<br>229)<br>F5I14.<br>16<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166802 | ATU028<br>742 | ATL8C2<br>825:13<br>66..1  | nap |  |  |  |  |  | ATL8C2<br>825:13<br>14..64<br>8  | 0.65 | g22810<br>83 | 64 | 949  | 2.8e-<br>96  | (AC002<br>333)<br>polyga<br>lactur<br>onase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166803 | ATU028<br>743 | ATL8C1<br>4665:7<br>28..1  | nap |  |  |  |  |  | ATL8C1<br>4665:6<br>75..13       | 0.65 | g49143<br>79 | 64 | 221  | 9.7e-<br>21  | (AC007<br>584)<br>hypoth  |







|        |               |                                   |     |  |  |  |                                   |      |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--|--------------|----|------|--------------|---|
| 166809 | ATU028<br>749 | ATL8C1<br>5704:1<br>153..1        | nap |  |  |  | ATL8C1<br>5704:1<br>071..3<br>06  | 0.62 |  | g36458<br>98 | 64 | 1598 | 9.7e-<br>141 | thalia<br>nal<br>(U6840<br>8) in-<br>frame<br>stop<br>codon;<br>possib<br>ly a<br>post-<br>transp<br>ositio<br>n<br>mutati<br>on<br>[Zea<br>mays] |
| 166810 | ATU028<br>750 | ATL8S1<br>4699:2<br>9..498        | nap |  |  |  | ATL8S1<br>4699:2<br>9..459        | 0.62 |  | g32041<br>08 | 64 | 164  | 3.8e-<br>14  | (AJ006<br>764)<br>putati<br>ve<br>deoxyc<br>ytidyl<br>ate<br>deamin<br>ase<br>[Cicer<br>arieti<br>num]  |
| 166811 | ATU028<br>751 | ATL8C1<br>6643:2<br>005..1<br>300 | nap |  |  |  | ATL8C1<br>6643:1<br>769..1<br>300 | 0.61 |  | g44328<br>40 | 64 | 180  | 0.010        | (AC006<br>283)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166812 | ATU028        | ATL8C3                            | nap |  |  |  | ATL8C3                            | 0.60 |  | g44067       | 64 | 3224 |              | (AC006  |

The data are from the same source as the data in the previous table, but are sorted by the number of genes in the cluster.

|        |                        |                                    |     |  |  |                                    |      |                               |        |              |                              |  |
|--------|------------------------|------------------------------------|-----|--|--|------------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 752    | 3911:1<br>41..34<br>51 |                                    |     |  |  | 3911:2<br>32..33<br>98             | 0.59 | g44173<br>01,<br>g45443<br>72 | 64, 58 | 392,<br>1988 | 4.4e-<br>36,<br>3.2e-<br>220 | 304)<br>putati<br>ve<br>helica<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166813 | ATU028<br>753          | ATL8C5<br>0174:1<br>0252..<br>6411 | nap |  |  | ATL8C5<br>0174:1<br>0105..<br>6411 | 0.59 | g44173<br>01,<br>g45443<br>72 | 64, 58 | 392,<br>1988 | 4.4e-<br>36,<br>3.2e-<br>220 | (AC006<br>446)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166814 | ATU028<br>754          | ATL8S2<br>8617:5<br>13..1          | nap |  |  | ATL8S2<br>8617:4<br>18..42         | 0.58 | g24597<br>37                  | 64     | 147          | 9.8e-<br>06                  | (U9537<br>5)<br>oxidor<br>educta<br>se<br>[Halof<br>erax<br>volcan   |

|        |               |                            |     |  |  |  |                                  |      |  |               |                      |             |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--|---------------|----------------------|-------------|--|
| 166815 | ATU028<br>755 | ATL8C4<br>8117:6<br>81..1  | nap |  |  |  | ATL8C4<br>8117:4<br>77..22<br>0  | 0.58 | g22621<br>62                                   | 64            | 273                  | 9.1e-<br>31 | ii]<br>(AC002<br>329)<br>hypo-<br>thetical<br>protein<br>similar<br>to<br>A.<br>thaliana<br>protein<br>F19K23<br>.19<br>[Arabi-<br>dopsis<br>thaliana]                               |
| 166816 | ATU028<br>756 | ATL8C4<br>3548:7<br>465..1 | nap |  |  |  | ATL8C4<br>3548:7<br>465..1<br>13 | 0.57 | g47739<br>08,<br>g42630<br>63,<br>g45570<br>68 | 64,<br>63, 32 | 664,<br>1114,<br>931 |             | (AF147<br>259)<br>No<br>defini-<br>tion<br>line<br>found<br>[Arabi-<br>dopsis<br>thaliana]<br>];<br>(AC005<br>142)<br>hypo-<br>thetical<br>protein<br>[Arabi-<br>dopsis<br>thaliana] |

[illegible]

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 166817 | ATU028<br>757 | ATL8C4<br>7964:1<br>298..2<br>096 | nap |  |  |  | ATL8C4<br>7964:1<br>401..1<br>951 | 0.57 | g38105<br>98 | 64 | 835 | 7.2e-<br>87 | (AC005<br>398)<br>putati<br>ve<br>endo-<br>xylogl<br>ucan<br>transf<br>erases<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 166818 | ATU028<br>758 | ATL8S7<br>998:58<br>5..1          | nap |  |  |  | ATL8S7<br>998:52<br>3..59         | 0.57 | g11767<br>07 | 64 | 225 | 1.1e-<br>19 | HYPOTH<br>ETICAL<br>33.0<br>KD<br>PROTEI<br>N IN<br>PROB-<br>PROA<br>INTERG<br>ENIC<br>REGION<br>[Coryn<br>ebacte<br>rium<br>glutam<br>icum] |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 166819 | ATU028<br>759 | ATL8S9<br>079:62<br>0..35        | nap |  |  |  | ATL8S9<br>079:43<br>7..334       | 0.57 | g30470<br>91 | 64 | 350  | 2.0e-<br>26  | (AF058<br>826)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166820 | ATU028<br>760 | ATL8C4<br>4303:2<br>864..1<br>51 | nap |  |  |  | ATL8C4<br>4303:2<br>582..1<br>57 | 0.56 | g33193<br>45 | 64 | 1345 | 2.5e-<br>133 | (AF077<br>407)<br>contai<br>ns<br>simila<br>rity<br>to<br>maize<br>transp<br>oson<br>MuDR<br>(GB:M7<br>6978)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166821 | ATU028<br>761 | ATL8C2<br>8273:5<br>38..11<br>0  | nap |  |  |  | ATL8C2<br>8273:4<br>14..13<br>9  | 0.56 | g44067<br>82 | 64 | 689  | 7.9e-<br>59  | (AC006<br>532)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166822 | ATU028<br>762 | ATL8C4<br>9387:8                 | nap |  |  |  | ATL8C4<br>9387:8                 | 0.56 | g48352<br>42 | 64 | 1297 | 2.2e-<br>112 | (AL049<br>862)  |

|        |               |                           |                           |     |  |  |  |  |  |                            |      |                               |        |              |                              |   |
|--------|---------------|---------------------------|---------------------------|-----|--|--|--|--|--|----------------------------|------|-------------------------------|--------|--------------|------------------------------|---|
| 166823 | ATU028<br>763 | 91..1                     | nap                       |     |  |  |  |  |  | 91..12<br>6                | 0.54 | g38106<br>01,<br>g38057<br>69 | 64, 62 | 136,<br>1207 | 2.7e-<br>07,<br>7.0e-<br>122 | putative<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC005<br>398)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>693)<br>putative<br>mudR-<br>like<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166824 | ATU028<br>764 | ATL8C2<br>299:21<br>90..1 | ATL8C4<br>2961:9<br>00..1 | nap |  |  |  |  |  | ATL8C2<br>299:18<br>03..81 | 0.53 | g33778<br>33                  | 64     | 820          | 6.1e-<br>44                  | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Nicoti<br>ana<br>tabacu   |



|        |               |                            |     |  |  |  |  |  |      |  |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|------|--|--------------|----|------|--------------|---|
| 166825 | ATU028<br>765 | ATL8C1<br>4160:1<br>..1190 | nap |  |  |  |  |  | 0.52 |  | g27022<br>70 | 64 | 1765 | 1.1e-<br>169 | m<br>probab<br>le<br>integr<br>ase<br>(GB:X8<br>0830)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166826 | ATU028<br>766 | ATL8C1<br>2122:8<br>0..738 | nap |  |  |  |  |  | 0.52 |  | g38106<br>01 | 64 | 113  | 0.0002<br>9  | (AC003<br>033)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]          |
| 166827 | ATU028<br>767 | ATL8C4<br>3315:6<br>63..1  | nap |  |  |  |  |  | 0.52 |  | g24994<br>00 | 64 | 556  |              | (AC005<br>398)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]     |
|        |               |                            |     |  |  |  |  |  |      |  |              |    |      |              | ASPART<br>ATE<br>CARBAM<br>OYLTRA<br>NSFERA<br>SE<br>(ASPAR<br>TATE<br>TRANSC               |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 166828 | ATU028<br>768 | ATL8C2<br>5142:1<br>378..3<br>61 | nap |  |  |  |  |  | ATL8C2<br>5142:1<br>226..5<br>87 | 0.52 | g32876<br>91 | 64 | 285 | 1.2e-<br>21 | ARBAMY<br>LASE)<br>(ATCAS<br>E)<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]   |
| 166829 | ATU028<br>769 | ATL8C4<br>629:27<br>5..771       | nap |  |  |  |  |  | ATL8C4<br>629:27<br>5..637       | 0.51 | g29823<br>01 | 64 | 237 | 6.0e-<br>18 | (AC003<br>979)<br>Contai<br>ns<br>simila<br>rity<br>to<br>RING<br>zinc<br>finger<br>protei<br>n<br>gb X95<br>455<br>from<br>Gallus<br>gallus<br>.<br>[Arabi<br>dopsis<br>thalia<br>na] |



|        |               |                                 |     |  |  |  |                                 |      |                               |        |              |                              |   |
|--------|---------------|---------------------------------|-----|--|--|--|---------------------------------|------|-------------------------------|--------|--------------|------------------------------|---|
| 166832 | ATU028<br>772 | ATL8C1<br>009:13<br>24..14<br>9 | nap |  |  |  | ATL8C1<br>009:10<br>37..14<br>9 | 0.51 | g33778<br>30                  | 64     | 903          | 1.2e-<br>92                  | ADP1]<br>(AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>Aplysi<br>a califo<br>rnica<br>interm<br>ediate<br>filame<br>nt<br>protei<br>n A<br>(GB:X6<br>0297)<br>[Arabi<br>dopsis<br>thalia<br>nal |
| 166833 | ATU028<br>773 | ATL8C3<br>2705:3<br>198..1      | nap |  |  |  | ATL8C3<br>2705:3<br>106..2      | 0.49 | g45811<br>64,<br>g32427<br>11 | 64, 53 | 530,<br>1613 | 7.3e-<br>65,<br>8.7e-<br>177 | (AC006<br>220)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC003<br>040)<br>hypothe<br>tical<br>protei<br>n   |

|        |               |                                 |     |  |  |  |  |  |                                  |      |  |              |    |      |              |                                   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|----------------------------------|------|--|--------------|----|------|--------------|-----------------------------------|
| 166834 | ATU028<br>774 | ATL8S1<br>2926:6<br>16..1       | nap |  |  |  |  |  | ATL8S1<br>2926:6<br>16..28       | 0.49 |  | g24989<br>91 | 64 | 94   | 3.4e-<br>09  | [Arabi<br>dopsis<br>thalia<br>na] |
| 166835 | ATU028<br>775 | ATL8S1<br>4910:1<br>81..59<br>6 | nap |  |  |  |  |  | ATL8S1<br>4910:1<br>81..51<br>9  | 0.49 |  | g17231<br>73 | 64 | 219  | 2.1e-<br>19  | [Arabi<br>dopsis<br>thalia<br>na] |
| 166836 | ATU028<br>776 | ATL8C1<br>8557:1<br>..3320      | nap |  |  |  |  |  | ATL8C1<br>8557:2<br>58..30<br>20 | 0.48 |  | g34510<br>61 | 64 | 1584 | 2.9e-<br>164 | [Arabi<br>dopsis<br>thalia<br>na] |

|        |               |                                  |     |  |  |  |  |                                   |      |                               |        |              |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|-----------------------------------|------|-------------------------------|--------|--------------|-----------------------------|---|
| 166837 | ATU028<br>777 | ATL8C3<br>9097:1<br>..589        | nap |  |  |  |  | ATL8C3<br>9097:2<br>79..58<br>9   | 0.48 | g42062<br>06                  | 64     | 119          | 6.4e-<br>11                 | dopsis<br>thalia<br>na]<br>(AF071<br>527)<br>putati<br>ve M-<br>type<br>thiore<br>doxin<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166838 | ATU028<br>778 | ATL8C2<br>2312:9<br>20..27<br>68 | nap |  |  |  |  | ATL8C2<br>2312:1<br>847..2<br>768 | 0.48 | g47340<br>12,<br>g38057<br>69 | 64, 56 | 112,<br>1175 | 0.0046<br>,<br>3.6e-<br>127 | (AC007<br>112)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>693)<br>putati<br>ve<br>mudR-<br>like<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166839 | ATU028<br>779 | ATL8C4<br>6270:2<br>37..97<br>5  | nap |  |  |  |  | ATL8C4<br>6270:2<br>37..62<br>5   | 0.47 | g45394<br>44                  | 64     | 914          | 1.1e-<br>89                 | (AL049<br>523)<br>hypoth<br>etical  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166840 | ATU028<br>780 | ATL8C1<br>2743:3<br>06..10<br>30 | nap |  |  |  |  |  | ATL8C1<br>2743:3<br>06..70<br>2  | 0.46 | g39130<br>66 | 64 | 524  | 2.9e-<br>55  | ALTERN<br>ATIVE<br>OXIDAS<br>E 2<br>PRECUR<br>SOR [ ]  |
| 166841 | ATU028<br>781 | ATL8C2<br>3104:5<br>72..23<br>31 | nap |  |  |  |  |  | ATL8C2<br>3104:6<br>22..17<br>71 | 0.45 | g21601<br>80 | 64 | 833  | 3.4e-<br>82  | (AC000<br>132)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166842 | ATU028<br>782 | ATL8C4<br>0689:1<br>284..1       | nap |  |  |  |  |  | ATL8C4<br>0689:1<br>228..2<br>4  | 0.44 | g17070<br>17 | 64 | 1287 | 6.8e-<br>134 | (U7872<br>1) RNA<br>helica<br>se<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 166843 | ATU028<br>783 | ATL8C2<br>0177:4<br>217..1       | nap |  |  |  |  |  | ATL8C2<br>0177:4<br>217..1<br>54 | 0.44 | g33778<br>16 | 64 | 2444 | 1.9e-<br>211 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid                             |





|        |               |                                   |     |  |  |  |  |                                 |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 166846 | ATU028<br>786 | ATL8C2<br>1933:1<br>..1074        | nap |  |  |  |  | ATL8C2<br>1933:4<br>23..53<br>7 | 0.40 | g17904<br>83 | 64 | 142  | 2.4e-<br>10  | na]<br>(AE000<br>478)<br>orf,<br>hypoth<br>etical<br>protei<br>n<br>[Esche<br>richia<br>coli]          |
| 166847 | ATU028<br>787 | ATL8C3<br>4045:3<br>14..12<br>36  | nap |  |  |  |  |                                 |      | g43357<br>14 | 64 | 1481 | 3.5e-<br>143 | (AC006<br>248)<br>putati<br>ve<br>glucos<br>yltran<br>sferas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166848 | ATU028<br>788 | ATL8S3<br>0819:1<br>..559         | nap |  |  |  |  |                                 |      | g27393<br>87 | 64 | 170  | 1.0e-<br>15  | (AC002<br>505)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
| 166849 | ATU028<br>789 | ATL8C2<br>1905:1<br>099..4<br>587 | nap |  |  |  |  |                                 |      | g30470<br>68 | 64 | 801  | 5.0e-<br>87  | (AF058<br>825)<br>simila<br>r to<br>maize<br>transp<br>oson  |





|        |               |                                   |     |  |  |  |  |  |  |              |    |      |             |  |  |  |    |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|-------------|--|--|--|----|--|
| 166856 | 795           | 8775:7<br>25..10<br>50            |     |  |  |  |  |  |  | 53           |    |      |             |  |  |  | 08 | n -<br>rape<br>[Brass<br>ica<br>napus]<br>(AC006<br>068)<br>putati<br>ve<br>tiny<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        | ATU028<br>796 | ATL8C3<br>3502:3<br>30..70<br>2   | nap |  |  |  |  |  |  | g42637<br>85 | 64 | 443  | 1.8e-<br>42 |  |  |  |    |  |
| 166857 | ATU028<br>797 | ATL8C1<br>534:1.<br>.940          | nap |  |  |  |  |  |  | g30969<br>20 | 64 | 926  | 5.2e-<br>94 |  |  |  |    | (AL023<br>094)<br>putati<br>ve<br>ketoac<br>yl-CoA<br>syntha<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 166858 | ATU028<br>798 | ATL8C1<br>0347:2<br>985..1<br>658 | nap |  |  |  |  |  |  | g47340<br>05 | 64 | 1283 |             |  |  |  |    | (AC007<br>178)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166859 | ATU028<br>799 | ATL8S1<br>3892:1                  | nap |  |  |  |  |  |  | g11512<br>5  | 64 | 261  | 8.0e-<br>25 |  |  |  |    | HIGH-<br>AFFINI  |



|        |               |                                 |     |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--------------|----|-----|-------------|--|
| 166862 | ATU028<br>802 | ATL8C3<br>1865:1<br>..433       | nap |  |  |  |  |  | g11682<br>17 | 64 | 169 | 1.8e-<br>14 | DNA-3-<br>METHYL<br>ADENIN<br>E<br>GLYCOS<br>IDASE<br>(3-<br>METHYL<br>ADENIN<br>E-DNA<br>GLYCOS<br>YLASE)<br>(TAG)<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd] |
| 166863 | ATU028<br>803 | ATL8C1<br>2670:1<br>..645       | nap |  |  |  |  |  | g46789<br>26 | 64 | 401 | 5.5e-<br>35 | (Al049<br>711)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166864 | ATU028<br>804 | ATL8C4<br>703:11<br>04..77<br>0 | nap |  |  |  |  |  | g45194<br>20 | 64 | 185 | 1.3e-<br>08 | (AB024<br>328)<br>riboso<br>mal<br>protei<br>n S13<br>[Therm<br>us<br>thermo<br>philus<br>]  |
| 166865 | ATU028        | ATL8C6                          | nap |  |  |  |  |  | g42630       | 64 | 434 | 2.7e-       | (AC005   |



|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |      |              |  |    |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|----|--|
| 166870 | 809           | 218:1.<br>.787                   |     |  |  |  |  |  |  |  |  | 67           |    |      |              |  | 43 | 409)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        | ATU028<br>810 | ATL8C4<br>2445:1<br>..1691       | nap |  |  |  |  |  |  |  |  | g45811<br>64 | 64 | 1911 | 1.2e-<br>198 | (AC006<br>220)<br>putati<br>ve<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na] |    |  |
| 166871 | ATU028<br>811 | ATL8C2<br>3834:3<br>51..24<br>66 | nap |  |  |  |  |  |  |  |  | g30634<br>61 | 64 | 2713 | 1.8e-<br>286 | (AC003<br>981)<br>F22013<br>.23<br>[Arabi<br>dopsis<br>thalia<br>na]                   |    |  |
| 166872 | ATU028<br>812 | ATL8C3<br>9311:2<br>355..8<br>29 | nap |  |  |  |  |  |  |  |  | g28282<br>84 | 64 | 1004 | 2.7e-<br>100 | (AL021<br>687)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |    |  |
| 166873 | ATU028<br>813 | ATL8S2<br>0921:5                 | nap |  |  |  |  |  |  |  |  | g45404       | 64 | 213  | 2.3e-<br>18  | (Z1215<br>4)   |    |  |





|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 166876 | ATU028<br>816 | ATL8C1<br>452:58<br>0..124<br>2  | nap |  |  |  |  |  |  |  |  | g17660<br>48 | 64 | 596 | 4.7e-<br>52 | [Arabi<br>dopsis<br>thalia<br>na]<br>(U8199<br>4)<br>NAD+<br>depend<br>ent<br>isocit<br>rate<br>dehydr<br>ogenas<br>e<br>subuni<br>t 2<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166877 | ATU028<br>817 | ATL8C1<br>9507:6<br>18..16<br>13 | nap |  |  |  |  |  |  |  |  | g26186<br>94 | 64 | 557 | 4.2e-<br>51 | (AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166878 | ATU028<br>818 | ATL8C1<br>5644:1<br>..837        | nap |  |  |  |  |  |  |  |  | g31281<br>74 | 64 | 284 | 1.6e-<br>28 | (AC004<br>521)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |



|        |               |                           |     |  |  |  |  |  |                     |  |  |  |              |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|---------------------|--|--|--|--------------|---|
| 166882 | ATU028<br>822 | ATL8C4<br>0642:8<br>58..1 | nap |  |  |  |  |  | 62,<br>g43097<br>67 |  |  |  | 1.1e-<br>209 | ve<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>142)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>217)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                           |     |  |  |  |  |  |                     |  |  |  | 6.5e-<br>68  | (AL049<br>640)<br>putati<br>ve<br>protei<br>n [Arabi<br>dopsis<br>thalia  |

|        |               |                           |     |  |  |  |  |                            |      |              |    |     |             |   |
|--------|---------------|---------------------------|-----|--|--|--|--|----------------------------|------|--------------|----|-----|-------------|---|
| 166883 | ATU028<br>823 | ATL8S2<br>2035:4<br>84..1 | nap |  |  |  |  | ATL8S2<br>2035:4<br>13..27 | 1.00 | g22574<br>74 | 63 | 622 | 5.1e-<br>60 | na]<br>(AB003<br>475)<br>aldehy<br>de<br>dehydr<br>ogenas<br>e<br>[Deino<br>coccus<br>radiod<br>urans]            |
| 166884 | ATU028<br>824 | ATL8C1<br>9108:2<br>37..1 | nap |  |  |  |  |                            |      | g45743<br>20 | 64 | 124 | 4.1e-<br>10 | (AF117<br>224)<br>wound-<br>induce<br>d<br>protei<br>n WI12<br>[Mesem<br>bryant<br>hemum<br>crysta<br>llinum<br>] |
| 166885 | ATU028<br>825 | ATL8C2<br>4876:2<br>56..1 | nap |  |  |  |  |                            |      | g47339<br>87 | 64 | 135 | 3.6e-<br>18 | (AC007<br>209)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 166886 | ATU028<br>826 | ATL8S2<br>5299:1<br>..324 | nap |  |  |  |  |                            |      | g48951<br>75 | 64 | 217 | 2.1e-<br>19 | (AC007<br>662)<br>putati<br>ve<br>Athila  |



|        |               |                                 |     |  |  |  |  |  |                            |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|----------------------------|--------------|----|-----|-------------|---|
| 166890 | ATU028<br>830 | ATL8C2<br>5795:5<br>34..11<br>3 | nap |  |  |  |  |  |                            | g25058<br>76 | 64 | 461 | 5.8e-<br>40 | (Y1277<br>6)<br>MYB-<br>related<br>protein<br>[Arabidopsis<br>thaliana]   |
| 166891 | ATU028<br>831 | ATL8C4<br>4742:3<br>63..76<br>2 | nap |  |  |  |  |  |                            | g53902<br>9  | 64 | 74  | 8.7e-<br>05 | cysteine-<br>rich<br>extensin-<br>like<br>protein 1<br>precursor -<br>common<br>tobacco<br>[Nicotiana<br>tabacum] |
| 166892 | ATU028<br>832 | ATL8S2<br>5561:1<br>..612       | nap |  |  |  |  |  | ATL8S2<br>5561:1<br>4..550 | g28087<br>72 | 63 | 219 | 3.3e-<br>31 | (AL021<br>411)<br>hypothetical<br>protein<br>n SC7H1.<br>14<br>[Streptomyces<br>coelic]                           |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 166893 | ATU028<br>833 | ATL8C4<br>4459:1<br>..707         | nap |  |  |  | ATL8C4<br>4459:5<br>7..707        | 0.99 | g38591<br>16 | 63 | 437  | 2.8e-<br>43  | olor]<br>(AF031<br>609)<br>unknown<br>n<br>[Oryza<br>sativa<br>]   |
| 166894 | ATU028<br>834 | ATL8C4<br>6737:1<br>..2281        | nap |  |  |  | ATL8C4<br>6737:8<br>9..840        | 0.96 | g37383<br>37 | 63 | 2338 | 1.3e-<br>226 | (AC005<br>170)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 166895 | ATU028<br>835 | ATL8C4<br>4610:1<br>252..2<br>452 | nap |  |  |  | ATL8C4<br>4610:1<br>252..2<br>329 | 0.95 | g11725<br>38 | 63 | 1511 | 1.4e-<br>126 | PROBAB<br>LE<br>PECTIN<br>ESTERA<br>SE<br>PRECUR<br>SOR<br>(PECTI<br>N<br>METHYL<br>ESTERA<br>SE)<br>(PE)<br>[Brass<br>ica<br>napus] |
| 166896 | ATU028<br>836 | ATL8C1<br>1692:2<br>490..4        | nap |  |  |  | ATL8C1<br>1692:2<br>424..4        | 0.95 | g33373<br>61 | 63 | 964  | 2.4e-<br>92  | (AC004<br>481)<br>ankyri   |



|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 166897 | ATU028<br>837 | 68                              | nap |  |  |  |  | 96                              | 0.95 | g15685<br>83 | 63 | 476 | 3.9e-<br>31 | n-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               | ATL8S9<br>739:50<br>2..1        |     |  |  |  |  | ATL8S9<br>739:44<br>2..80       |      |              |    |     |             | (Z8077<br>5)<br>hypoth<br>etical<br>protei<br>n<br>Rv0044<br>C<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 166898 | ATU028<br>838 | ATL8C4<br>8081:1<br>..705       | nap |  |  |  |  | ATL8C4<br>8081:6<br>1..705      | 0.94 | g10766<br>11 | 63 | 526 | 2.5e-<br>56 | peroxi<br>dase<br>(EC<br>1.11.1<br>.7),<br>anioni<br>c,<br>precur<br>sor -<br>wood<br>tobacc<br>o [ ]             |
|        |               | ATL8C2<br>973:15<br>60..52<br>9 |     |  |  |  |  | ATL8C2<br>973:13<br>83..52<br>9 |      |              |    |     |             | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi   |
| 166899 | ATU028<br>839 | ATL8C2<br>973:15<br>60..52<br>9 | nap |  |  |  |  | ATL8C2<br>973:13<br>83..52<br>9 | 0.94 | g22447<br>52 | 63 | 787 | 8.1e-<br>84 | (Z9733<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi   |



|        |               |                           |     |  |  |  |  |  |  |      |              |    |     |             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|------|--------------|----|-----|-------------|--|
| 166903 | ATU028<br>843 | ATL8C3<br>2601:1<br>..462 | nap |  |  |  |  |  |  | 0.89 | 946210<br>5  | 63 | 171 | 1.5e-<br>16 | CE-<br>BINDIN<br>G<br>PROTEI<br>N 1)<br>(TBP-<br>1)<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 166904 | ATU028<br>844 | ATL8C1<br>4271:1<br>..721 | nap |  |  |  |  |  |  | 0.87 | 931231<br>59 | 63 | 621 | 2.4e-<br>62 | HYPOTH<br>ETICAL<br>40.4<br>KD<br>TRP-<br>ASP<br>REPEAT<br>S<br>CONTAI<br>NING<br>PROTEI<br>N<br>C14B1.<br>4 IN<br>CHROMO<br>SOME<br>III<br>[] |

|        |               |                                  |     |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 166905 | ATU028<br>845 | ATL8C4<br>6208:1<br>024..1       | nap |  |  |  | ATL8C4<br>6208:1<br>024..5<br>64 | 0.87 | g45862<br>60 | 63 | 750 | 4.1e-<br>63 | (AL049<br>640)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 166906 | ATU028<br>846 | ATL8C3<br>1580:1<br>192..5<br>11 | nap |  |  |  | ATL8C3<br>1580:1<br>147..6<br>79 | 0.86 | g46462<br>05 | 63 | 727 | 4.8e-<br>76 | (AC007<br>230)<br>T23K8.<br>8<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 166907 | ATU028<br>847 | ATL8C3<br>5235:7<br>84..11<br>7  | nap |  |  |  | ATL8C3<br>5235:5<br>90..11<br>7  | 0.86 | g33554<br>82 | 63 | 162 | 3.5e-<br>15 | (AC004<br>218)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 166908 | ATU028<br>848 | ATL8C4<br>0695:1<br>..1501       | nap |  |  |  | ATL8C4<br>0695:2<br>74..15<br>01 | 0.85 | g43594<br>4  | 63 | 120 | 0.99        | (U0429<br>6)<br>DNA-<br>bindin<br>g<br>factor<br>of<br>bZIP<br>class<br>[Oryza<br>sativa<br>] |

|        |               |                            |     |  |  |  |                                  |      |              |    |      |             |   |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|---|
| 166909 | ATU028<br>849 | ATL8C2<br>7591:1<br>..2413 | nap |  |  |  | ATL8C2<br>7591:1<br>79..23<br>14 | 0.84 | g31231<br>61 | 63 | 132  |             | HYPOTH<br>ETICAL<br>77.0<br>KD<br>TRP-<br>ASP<br>REPEAT<br>S<br>CONTAI<br>NING<br>PROTEI<br>N<br>F35G12<br>.4 IN<br>CHROMO<br>SOME<br>III<br>[] |
| 166910 | ATU028<br>850 | ATL8C1<br>5009:1<br>519..1 | nap |  |  |  | ATL8C1<br>5009:1<br>450..8<br>3  | 0.84 | g46782<br>79 | 63 | 1114 | 9.1e-<br>99 | (AL049<br>660)<br>carbox<br>yl<br>termin<br>al<br>protea<br>se-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                    |
| 166911 | ATU028<br>851 | ATL8C4<br>7662:1<br>..386  | nap |  |  |  | ATL8C4<br>7662:1<br>..386        | 0.84 | g42204<br>61 | 63 | 108  | 0.48        | (AC006<br>216)<br>ESTs<br>gb T75<br>642<br>and<br>gb AA6  |

|        |               |                            |     |  |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166912 | ATU028<br>852 | ATL8C2<br>5627:1<br>124..1 | nap |  |  |  |  |  |  | ATL8C2<br>5627:1<br>041..2<br>53 | 0.84 | g21911<br>35 | 63 | 477  | 2.7e-<br>49  | 50997<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 166913 | ATU028<br>853 | ATL8C8<br>012:1.<br>.994   | nap |  |  |  |  |  |  | ATL8C8<br>012:17<br>9..767       | 0.83 | g48836<br>01 | 63 | 1159 | 1.5e-<br>123 | (AF007<br>269)<br>A IG00<br>2N01.1<br>4 gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166914 | ATU028<br>854 | ATL8S3<br>20:604<br>..192  | nap |  |  |  |  |  |  | ATL8S3<br>20:604<br>..192        | 0.83 | g43097<br>35 | 63 | 275  | 3.9e-<br>26  | (AC006<br>439)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]           |

|        |               |                                  |     |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 166915 | ATU028<br>855 | ATL8C3<br>9127:1<br>263..1<br>17 | nap |  |  | ATL8C3<br>9127:7<br>37..48<br>2 | 0.82 | g45875<br>40 | 63 | 432 | 1.5e-<br>42 | (AC006<br>577)<br>Belong<br>s to<br>the<br>PF 006<br>57<br>Lipase<br>/Acylh<br>ydrola<br>se<br>with<br>GDSL-<br>motif<br>family<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166916 | ATU028<br>856 | ATL8C4<br>8996:6<br>84..1        | nap |  |  | ATL8C4<br>8996:6<br>18..70      | 0.82 | g38688<br>57 | 63 | 213 | 2.8e-<br>23 | (AB013<br>886)<br>RAV1<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166917 | ATU028<br>857 | ATL8C4<br>7087:1<br>..1554       | nap |  |  | ATL8C4<br>7087:8<br>2..114<br>2 | 0.82 | g37382<br>97 | 63 | 548 | 1.2e-<br>37 | (AC005<br>309)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166918 | ATU028<br>858 | ATL8C2<br>98:938<br>..2396       | nap |  |  | ATL8C2<br>98:963<br>..2255      | 0.81 | g26641<br>0  | 63 | 775 | 5.4e-<br>56 | CDC2+/<br>CDC28-<br>RELATE   |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |     |             |  |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|--|
| 166919 | ATU028<br>859 | ATL8C3<br>6332:1<br>..1240      | nap |  |  |  |  | ATL8C3<br>6332:2<br>50..10<br>41 | 0.81 | g17698<br>98 | 63 | 678 | 8.7e-<br>66 | (Y0801<br>0)<br>lectin<br>recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>nal]   | D<br>PROTEI<br>N<br>KINASE<br>R2<br>[Oryza<br>sativa<br>J] |
| 166920 | ATU028<br>860 | ATL8C2<br>882:31<br>0..296<br>1 | nap |  |  |  |  | ATL8C2<br>882:31<br>0..259<br>2  | 0.81 | g38752<br>46 | 63 | 527 | 6.5e-<br>46 | (Z8149<br>0)<br>simila<br>r to<br>WD<br>domain<br>, G-<br>beta<br>repeat<br>s (2<br>domain<br>s);<br>cDNA<br>EST<br>EMBL:T<br>00482<br>comes<br>from<br>this<br>gene;<br>cDNA<br>EST |  |







|        |               |                                  |     |  |  |  |  |  |  |                                   |      |  |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|-----------------------------------|------|--|--------------|----|------|--------------|--|
| 166925 | ATU028<br>865 | ATL8C1<br>2806:1<br>..1101       | nap |  |  |  |  |  |  | ATL8C1<br>2806:7<br>35..11<br>01  | 0.77 |  | g18414<br>75 | 63 | 154  | 2.3e-<br>17  | (38kD)<br>[Homo<br>sapien<br>s]<br>(Y1110<br>5)<br>Myb26<br>[Pisum<br>sativu<br>m]                       |
| 166926 | ATU028<br>866 | ATL8C8<br>295:97<br>8..35        | nap |  |  |  |  |  |  | ATL8C8<br>295:82<br>7..76         | 0.77 |  | g24987<br>32 | 63 | 844  | 1.9e-<br>76  | PROBAB<br>LE<br>NADP-<br>DEPEND<br>ENT<br>OXIDOR<br>EDUCTA<br>SE P2<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166927 | ATU028<br>867 | ATL8C2<br>2840:2<br>44..27<br>02 | nap |  |  |  |  |  |  | ATL8C2<br>2840:1<br>106..2<br>476 | 0.76 |  | g44163<br>01 | 63 | 1822 | 2.4e-<br>138 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]  |
| 166928 | ATU028<br>868 | ATL8C4<br>7529:2<br>085..1       | nap |  |  |  |  |  |  | ATL8C4<br>7529:1<br>646..3<br>87  | 0.74 |  | g44173<br>09 | 63 | 2032 | 2.2e-<br>214 | (AC006<br>446)<br>putati<br>ve pol<br>polypr<br>oteins<br>with a<br>revers<br>e<br>transc<br>riptas      |

|        |               |                                 |     |  |  |  |  |  |                                  |      |  |              |    |     |             |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|----------------------------------|------|--|--------------|----|-----|-------------|---|
| 166929 | ATU028<br>869 | ATL8C2<br>4590:2<br>060..1      | nap |  |  |  |  |  | ATL8C2<br>4590:1<br>966..1<br>91 | 0.74 |  | g38108<br>44 | 63 | 410 | 8.0e-<br>18 | e domain<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AL032<br>684)<br>putati<br>ve<br>nucleo<br>lar<br>protei<br>n-<br>NOL1-<br>NOP2-<br>sun<br>family<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe] |
| 166930 | ATU028<br>870 | ATI8C4<br>3755:6<br>5..249<br>1 | nap |  |  |  |  |  | ATL8C4<br>3755:7<br>1..182<br>7  | 0.73 |  | g30045<br>49 | 63 | 190 |             | (AC003<br>673)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>437)<br>unknow<br>n<br>protei<br>n<br>[Arabi   |
| 166931 | ATU028<br>871 | ATL8C2<br>1876:1<br>029..1      | nap |  |  |  |  |  | ATL8C2<br>1876:9<br>57..48<br>1  | 0.72 |  | g44328<br>01 | 63 | 275 | 3.0e-<br>27 | (AC006<br>437)<br>unknow<br>n<br>protei<br>n<br>[Arabi  |

|        |               |                                    |     |  |  |  |  |                                   |      |                               |        |             |                             |  |
|--------|---------------|------------------------------------|-----|--|--|--|--|-----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|--|
| 166932 | ATU028<br>872 | ATL8S5<br>170:56<br>5..1           | nap |  |  |  |  | ATL8S5<br>170:48<br>4..10         | 0.70 | g21172<br>18                  | 63     | 193         | 2.2e-<br>21                 | dopsis<br>thalia<br>nal<br>(Z9558<br>5)<br>ephC<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 166933 | ATU028<br>873 | ATL8C2<br>4589:7<br>91..1          | nap |  |  |  |  | ATL8C2<br>4589:7<br>91..76        | 0.70 | g33675<br>28                  | 63     | 686         | 3.6e-<br>61                 | (AC004<br>392)<br>Strong<br>simila<br>rity<br>to<br>[Arabi<br>dopsis<br>thalia<br>nal]             |
| 166934 | ATU028<br>874 | ATL8C2<br>3580:8<br>81..39<br>0    | nap |  |  |  |  | ATL8C2<br>3580:8<br>81..39<br>0   | 0.69 | g34027<br>04                  | 63     | 233         | 2.3e-<br>23                 | (AC004<br>261)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]            |
| 166935 | ATU028<br>875 | ATL8C3<br>2353:1<br>594...3<br>219 | nap |  |  |  |  | ATL8C3<br>2353:1<br>958..3<br>069 | 0.69 | g42630<br>51,<br>g36953<br>87 | 63, 32 | 156,<br>690 | 0.0001<br>0,<br>2.7e-<br>71 | (AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]            |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166938 | ATU028<br>878 | ATL8C9<br>142:52<br>3..212<br>3  | nap |  |  |  | ATL8C9<br>142:52<br>3..201<br>3  | 0.68 | g48039<br>57 | 63 | 1859 |              | (AC006<br>202)<br>putati<br>ve<br>hydrox<br>ypoli<br>ne-<br>rich<br>glycop<br>rotein<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166939 | ATU028<br>879 | ATL8C3<br>9187:1<br>..2784       | nap |  |  |  | ATL8C3<br>9187:6<br>..2778       | 0.66 | g47340<br>13 | 63 | 1465 | 2.5e-<br>122 | (AC007<br>112)<br>putati<br>ve<br>TNP1<br>of the<br>Taml<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>nal]           |
| 166940 | ATU028<br>880 | ATL8C3<br>4880:3<br>815..1<br>66 | nap |  |  |  | ATL8C3<br>4880:3<br>180..2<br>79 | 0.66 | g43097<br>48 | 63 | 1212 | 2.3e-<br>136 | (AC006<br>217)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                    |
| 166941 | ATU028<br>881 | ATL8C3<br>8040:4<br>67..21       | nap |  |  |  | ATL8C3<br>8040:4<br>82..16       | 0.66 | g23263<br>42 | 63 | 635  | 8.3e-<br>63  | (Y1118<br>7)<br>Terpen   |





|        |               |                                 |     |  |  |  |                                   |      |              |    |     |             |   |
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| 166945 | ATU028<br>885 | ATL8C1<br>2639:3<br>48..59<br>5 | nap |  |  |  | ATL8C1<br>2639:3<br>48..59<br>5   | 0.62 | g32692<br>89 | 63 | 327 | 1.7e-<br>11 | (AL030<br>978)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 166946 | ATU028<br>886 | ATL8S1<br>8323:4<br>63..1       | nap |  |  |  | ATL8S1<br>8323:4<br>63..12        | 0.61 | g16536<br>90 | 63 | 109 | 1.6e-<br>11 | (D9091<br>5)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]   |
| 166947 | ATU028<br>887 | ATL8C4<br>2991:1<br>428..4<br>6 | nap |  |  |  | ATL8C4<br>2991:1<br>124..1<br>040 | 0.61 | g23426<br>86 | 63 | 111 | 3.6e-<br>07 | (AC000<br>106)<br>Simila<br>r to<br>Saccha<br>romyce<br>s<br>hypoth<br>etical<br>protei<br>n<br>YDR051<br>c<br>(gb Z4<br>9209).<br>ESTs<br>gb T44<br>436,gb<br>142252<br>come |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 166948 | ATU028<br>888 | ATL8C1<br>3091:3<br>788..4<br>826 | nap |  |  |  |  |  | ATL8C1<br>3091:3<br>788..4<br>822 | 0.61 | g13619<br>82 | 63 | 1260 | 1.5e-<br>135 | 4-<br>coumarate--<br>CoA<br>ligase<br>(EC<br>6.2.1.12) -<br>Arabidopsis<br>thaliana<br>[Arabidopsis<br>thaliana] |
| 166949 | ATU028<br>889 | ATL8C4<br>0749:1<br>..639         | nap |  |  |  |  |  | ATL8C4<br>0749:1<br>03..50<br>4   | 0.61 | g13532<br>66 | 63 | 460  | 4.7e-<br>41  | (U27590)<br>Fe(II)<br>transport<br>protein<br>[Saccharomyces<br>cerevisiae]                                      |
| 166950 | ATU028<br>890 | ATL8S3<br>823:1.<br>.439          | nap |  |  |  |  |  | ATL8S3<br>823:73<br>..429         | 0.60 | g29169<br>42 | 63 | 502  | 1.8e-<br>35  | (AL021999)<br>hypothetical<br>protein  |

|        |               |                            |     |  |  |  |  |  |      |                               |        |              |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|------|-------------------------------|--------|--------------|--------------|---|
| 166951 | ATU028<br>891 | ATL8S1<br>7233:5<br>99..1  | nap |  |  |  |  |  | 0.60 | g32016<br>19                  | 63     | 514          | 3.1e-<br>51  | n<br>Rv0981<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]  |
| 166952 | ATU028<br>892 | ATL8C4<br>9192:1<br>992..1 | nap |  |  |  |  |  | 0.58 | g22136<br>08                  | 63     | 1960         | 4.6e-<br>201 | (AC004<br>669)<br>dihydr<br>oxypol<br>ypreny<br>lbenzo<br>ate<br>methyl<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 166953 | ATU028<br>893 | ATL8C1<br>0008:1<br>..3159 | nap |  |  |  |  |  | 0.58 | g47739<br>08,<br>g36953<br>99 | 63, 46 | 1600,<br>907 | 4.0e-<br>106 | (AC000<br>103)<br>F21J9.<br>2<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia |



|        |               |                                  |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166955 | ATU028<br>895 | ATL8C9<br>341:1.<br>.1855        | nap |  |  |  | ATL8C9<br>341:56<br>..1847       | 0.57 | g22621<br>05 | 63 | 1069 | 3.2e-<br>107 | (AC002<br>343)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 166956 | ATU028<br>896 | ATL8C3<br>1599:8<br>66..23<br>52 | nap |  |  |  | ATL8C3<br>1599:8<br>66..22<br>39 | 0.57 | g49143<br>81 | 63 | 1158 | 2.2e-<br>116 | (AC007<br>584)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                |
| 166957 | ATU028<br>897 | ATL8S6<br>801:17<br>4..519       | nap |  |  |  | ATL8S6<br>801:17<br>4..510       | 0.57 | g20766<br>70 | 63 | 212  |              | (Z9515<br>0)<br>hypoth<br>etical<br>protein<br>Rv3095<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>] |
| 166958 | ATU028<br>898 | ATL8S2<br>9614:5<br>29..1        | nap |  |  |  | ATL8S2<br>9614:4<br>97..39       | 0.57 | g36767<br>48 | 63 | 512  | 5.0e-<br>48  | (AF086<br>832)<br>20S<br>protea<br>some<br>beta-<br>subuni   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 166959 | ATU028<br>899 | ATL8C3<br>3021:3<br>40..1        | nap |  |  |  | ATL8C3<br>3021:2<br>85..53       | 0.56 | g37765<br>62 | 63 | 299 | 1.5e-<br>22 | t<br>precu<br>sor<br>[Strep<br>tomyce<br>s<br>coelic<br>olor]<br>(AC005<br>388)<br>Simila<br>r to<br>gb X80<br>472<br>STS15<br>gene<br>from<br>Solanu<br>m<br>tubero<br>sum.<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 166960 | ATU028<br>900 | ATL8C3<br>7176:3<br>006..1<br>14 | nap |  |  |  | ATL8C3<br>7176:2<br>449..1<br>14 | 0.56 | g30333<br>86 | 63 | 214 |             | (AC004<br>238)<br>RING3-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 166961 | ATU028<br>901 | ATL8S9<br>318:24<br>5..446       | nap |  |  |  | ATL8S9<br>318:25<br>4..436       | 0.56 | g24955<br>80 | 63 | 144 | 3.3e-<br>12 | 12.2<br>KD<br>PROTEI<br>N IN<br>CSPD-  |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|--------------|---|
| 166962 | ATU028<br>902 | ATL8S7<br>526:49<br>4..265      | nap |  |  |  |  | ATL8S7<br>526:44<br>4..291      | 0.55 | g31228<br>18 | 63 | 231 | 5.0e-<br>19  | CLPA<br>INTERG<br>ENIC<br>REGION<br>[Esche<br>richia<br>coli]                                 |
| 166963 | ATU028<br>903 | ATL8C6<br>453:12<br>17..23<br>3 | nap |  |  |  |  | ATL8C6<br>453:11<br>43..45<br>7 | 0.55 | g31767<br>17 | 63 | 975 | 5.1e-<br>102 | 30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S6<br>[Neiss<br>eria<br>gonorr<br>hoeae]                  |
| 166964 | ATU028<br>904 | ATL8C4<br>0117:1<br>..383       | nap |  |  |  |  | ATL8C4<br>0117:6<br>9..348      | 0.54 | g22448<br>37 | 63 | 507 | 1.2e-<br>50  | (AC002<br>392)<br>putati<br>ve<br>pectin<br>estera<br>se<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166965 | ATU028<br>905 | ATL8C4<br>1202:4                | nap |  |  |  |  | ATL8C4<br>1202:3                | 0.53 | g45672<br>08 | 63 | 112 | 2.5e-<br>05  | (Z9733<br>7)<br>protea<br>some<br>chain<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |              | (AC007<br>168)  |

|        |               |                           |     |  |  |  |                                 |      |              |    |      |              |   |
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| 166966 | ATU028<br>906 | 0..494                    | nap |  |  |  | 42..49<br>0                     | 0.52 | g33193<br>60 | 63 | 2405 | 1.3e-<br>207 | unknown<br>protein<br>[Arabidopsis<br>thaliana]   |
|        |               | ATL8C4<br>353:1.<br>.2881 |     |  |  |  | ATL8C4<br>353:96<br>1..288<br>1 |      |              |    |      |              | (AF077<br>408)<br>contains<br>similarity<br>to<br>Vicia<br>fabarotrans-<br>poson-like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabidopsis<br>thaliana] |
| 166967 | ATU028<br>907 | ATL8S2<br>9747:1<br>..531 | nap |  |  |  | ATL8S2<br>9747:4<br>..508       | 0.51 | g40152<br>1  | 63 | 175  | 8.7e-<br>17  | HYPOTHETICAL<br>29.9<br>KD<br>PROTEIN<br>IN<br>CRTE<br>3'REGION<br>(ORF3)<br>[Erwin]  |





|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 166971 | ATU028<br>911 | ATL8C1<br>4510:1<br>255..5<br>22 | nap |  |  |  |  | ATL8C1<br>4510:1<br>209..5<br>37 | 0.46 | g45899<br>59 | 63 | 75   | 2.0e-<br>07  | Arabidopsis thaliana retrotransposon Tall-1 (GB:L47193) [Arabidopsis thaliana] |
| 166972 | ATU028<br>912 | ATL8C1<br>2569:1<br>..301        | nap |  |  |  |  | ATL8C1<br>2569:4<br>5..202       | 0.44 | g38057<br>59 | 63 | 252  | 1.6e-<br>21  | (AC005693) hypothetical protein [Arabidopsis thaliana]                         |
| 166973 | ATU028<br>913 | ATL8C3<br>0697:3<br>85..32<br>21 | nap |  |  |  |  | ATL8C3<br>0697:7<br>23..32<br>21 | 0.44 | g33193<br>60 | 63 | 2391 | 3.9e-<br>197 | (AF077408) contains similarity   |









|        |               |                                  |     |  |  |  |  |  |                            |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------|--------------|----|-----|-------------|---|
| 166985 | ATU028<br>925 | ATL8C3<br>1945:9<br>53..12<br>0  | nap |  |  |  |  |  |                            | g48952<br>24 | 63 | 733 | 5.1e-<br>62 | (AC007<br>660)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166986 | ATU028<br>926 | ATL8C3<br>1910:5<br>8..110<br>4  | nap |  |  |  |  |  | ATL8C3<br>1910:5<br>8..474 | 1.00         | 62 | 502 | 1.7e-<br>49 | (AC007<br>134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166987 | ATU028<br>927 | ATL8C3<br>6022:1<br>365..1<br>22 | nap |  |  |  |  |  |                            | g42042<br>80 | 63 | 495 | 7.5e-<br>56 | (AC004<br>146)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 166988 | ATU028<br>928 | ATL8S1<br>7865:1<br>..345        | nap |  |  |  |  |  |                            | g11463<br>1  | 63 | 281 | 2.0e-<br>25 | ATP<br>SYNTHA<br>SE B<br>CHAIN  |

|        |               |                                   |     |  |  |  |  |  |  |  |  |  |                               |        |             |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--|-------------------------------|--------|-------------|-------------|--|
| 166989 | ATU028<br>929 | ATL8C4<br>5046:1<br>357..1<br>709 | nap |  |  |  |  |  |  |  |  |  | g44689<br>82                  | 63     | 375         | 1.2e-<br>35 | (SUBUNIT I)<br>[Nicotiana tabacum]<br>(AL035605)<br>putative protein<br>[Arabidopsis thaliana] |
| 166990 | ATU028<br>930 | ATL8C2<br>7983:1<br>..325         | nap |  |  |  |  |  |  |  |  |  | g13880<br>88                  | 63     | 219         |             | (U35831)<br>thioredoxin<br>[Pisum sativum]   |
| 166991 | ATU028<br>931 | ATL8C3<br>7381:1<br>..614         | nap |  |  |  |  |  |  |  |  |  | g45393<br>85                  | 63     | 729         |             | (AL035526)<br>putative protein<br>[Arabidopsis thaliana]                                       |
| 166992 | ATU028<br>932 | ATL8C1<br>0331:1<br>..2285        | nap |  |  |  |  |  |  |  |  |  | g45444<br>60,<br>g42638<br>30 | 63, 39 | 621,<br>403 |             | (AC006592)<br>putative reverse   |





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| 166995 | ATU028<br>935 | ATL8C2<br>9507:3<br>574..1<br>231 | nap |  |  |  |  |  |  |  |  | g37460<br>69 | 63 | 2426 | 9.1e-<br>239 | dopsis<br>thalia<br>na]   |
| 166996 | ATU028<br>936 | ATL8C4<br>5951:4<br>01..31<br>87  | nap |  |  |  |  |  |  |  |  | g33193<br>60 | 63 | 2316 | 1.3e-<br>206 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 166997 | ATU028<br>937 | ATL8C4<br>2348:1<br>074..1        | nap |  |  |  |  |  |  |  |  | g42622<br>13 | 63 | 436  | 4.8e-<br>32  | (AC006<br>161)<br>hypo  |



|        |               |                                 |     |  |  |  |  |  |  |              |    |      |  |  |              |  |
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| 167002 | 941           | 177:1.<br>.565                  |     |  |  |  |  |  |  | 36           |    |      |  |  | 38           | 658)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                              |
|        | ATU028<br>942 | ATL8C3<br>0189:4<br>68..1       | nap |  |  |  |  |  |  | g40069<br>04 | 63 | 185  |  |  | 6.2e-<br>16  | (Z9970<br>8)<br>putati<br>ve<br>MADS-<br>box<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]      |
| 167003 | ATU028<br>943 | ATL8C1<br>6980:1<br>..2083      | nap |  |  |  |  |  |  | g26186<br>93 | 63 | 2370 |  |  | 1.4e-<br>233 | (AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167004 | ATU028<br>944 | ATL8C3<br>4699:8<br>46..37<br>7 | nap |  |  |  |  |  |  | g48862<br>83 | 63 | 783  |  |  | 1.1e-<br>75  | (AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi  |

[illegible]

|        |               |                                  |     |  |  |  |  |  |  |              |    |      |              |   |
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| 167005 | ATU028<br>945 | ATL8C1<br>1013:6<br>93..19<br>32 | nap |  |  |  |  |  |  | g12356<br>80 | 63 | 1004 | 5.3e-<br>101 | dopsis<br>thalia<br>nal<br>(U4869<br>8)<br>recept<br>or<br>serine<br>/threo<br>nine<br>kinase<br>PR5K<br>[Arabi<br>dopsis<br>thalia<br>nal  |
| 167006 | ATU028<br>946 | ATL8S5<br>448:15<br>9..562       | nap |  |  |  |  |  |  | g49893<br>1  | 63 | 93   | 0.64         | (Z1282<br>5)<br>ORF167<br>; homo<br>lo<br>gous<br>to<br>revers<br>e<br>transc<br>riptas<br>es<br>from<br>retrov<br>iral-<br>like<br>transp<br>osons<br>TNT 1-<br>94<br>from<br>tobacc<br>o and<br>COPIA |

|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |     |             |   |  |
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| 167007 | ATU028<br>947 | ATL8C1<br>3970:1<br>..485        | nap |  |  |  |  |  |  |  |  | g30803<br>58 | 63 | 727 | 4.4e-<br>65 | (AL022<br>580)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                    | from<br>Drosop<br>hila<br>[Beta<br>vulgar<br>is] |
| 167008 | ATU028<br>948 | ATL8C1<br>5502:1<br>..541        | nap |  |  |  |  |  |  |  |  | g32506<br>97 | 63 | 780 | 2.2e-<br>79 | (AL024<br>486)<br>putati<br>ve<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |  |
| 167009 | ATU028<br>949 | ATL8C3<br>1060:1<br>77..12<br>06 | nap |  |  |  |  |  |  |  |  | g31932<br>83 | 63 | 287 | 3.1e-<br>21 | (AF069<br>298)<br>simila<br>r to<br>Arabid<br>opsis<br>hypoth<br>etical<br>protein<br>T14G11<br>.25<br>(GB:<br>AC0023 |  |

|        |               |                            |     |  |  |  |  |  |  |              |    |     |             |   |  |
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| 167010 | ATU028<br>950 | ATL8S2<br>2847:5<br>39..1  | nap |  |  |  |  |  |  | g16847<br>31 | 63 | 309 | 9.9e-<br>25 | (Z7391<br>4)<br>ORF286<br>protein<br>[Pseudomonas<br>stutzeri]          | 41);<br>nearly<br>identical,<br>may be<br>the same<br>protein<br>[Arabidopsis<br>thaliana<br>na] |
| 167011 | ATU028<br>951 | ATL8C4<br>555:22<br>5..1   | nap |  |  |  |  |  |  | g37383<br>31 | 63 | 187 | 1.9e-<br>06 | (AC005<br>170)<br>unknown<br>protein<br>[Arabidopsis<br>thaliana<br>na] |  |
| 167012 | ATU028<br>952 | ATL8C4<br>5167:1<br>758..1 | nap |  |  |  |  |  |  | g40564<br>32 | 63 | 851 | 1.5e-<br>86 | (AC005<br>990)<br>Similar<br>r to<br>[Arabidopsis<br>thaliana<br>na]    |  |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|------|--------------|--|
| 167013 | ATU028<br>953 | ATL8C1<br>3593:2<br>412..2<br>089 | nap |  |  |  |  |  |  | g47340<br>12 | 63 | 166  | 2.8e-<br>12  | (AC007<br>112)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167014 | ATU028<br>954 | ATL8C7<br>235:27<br>08..20<br>34  | nap |  |  |  |  |  |  | g32528<br>16 | 63 | 453  | 7.8e-<br>48  | (AC004<br>705)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167015 | ATU028<br>955 | ATL8C2<br>4192:2<br>213..1<br>820 | nap |  |  |  |  |  |  | g40380<br>66 | 63 | 332  | 2.3e-<br>09  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167016 | ATU028<br>956 | ATL8C4<br>1518:3<br>152..1<br>688 | nap |  |  |  |  |  |  | g29147<br>07 | 63 | 2194 | 3.5e-<br>223 | (AC003<br>974)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n (Cf-    |











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| 167030 | ATU028<br>970 | ATL8C1<br>8599:3<br>941..1 | nap |  |  |  | ATL8C1<br>8599:3<br>680..9 | 0.94 |  | g45593<br>81,<br>g38735<br>50 | 62, 34 | 138,<br>63 | 1.9e-<br>12,<br>0.9999 | [AC006<br>526)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AL033<br>534)<br>serine<br>-rich<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe] |
| 167031 | ATU028<br>971 | ATL8C9<br>623:96<br>6..1   | nap |  |  |  | ATL8C9<br>623:86<br>8..9   | 0.92 |  | g17698<br>97                  | 62     | 331        | 2.0e-<br>43            | (Y0801<br>0)<br>lectin<br>recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167032 | ATU028<br>972 | ATL8S5<br>823:45<br>..618  | nap |  |  |  | ATL8S5<br>823:10<br>8..598 | 0.90 |  | g39351<br>40                  | 62     | 134        | 1.1e-<br>11            | (AC005<br>106)<br>T25N20<br>.4<br>[Arabi<br>dopsis<br>thalia<br>na]   |



|        |               |                            |     |  |  |  |  |                            |      |  |              |    |     |             |   |
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| 167037 | ATU028<br>977 | ATL8S3<br>949:17<br>1..1   | nap |  |  |  |  | ATL8S3<br>949:17<br>1..53  | 0.89 |  | g13346<br>4  | 62 | 166 | 1.1e-<br>11 | DNA-<br>DIRECT<br>ED RNA<br>POLYME<br>RASE<br>OMEGA<br>CHAIN<br>(TRANS<br>CRIPTA<br>SE<br>OMEGA<br>CHAIN)<br>(RNA<br>POLYME<br>RASE<br>OMEGA<br>SUBUNI<br>T)<br>[Esche<br>richia<br>coli] |
| 167038 | ATU028<br>978 | ATL8C2<br>2882:1<br>484..1 | nap |  |  |  |  | ATL8C2<br>2882:1<br>484..9 | 0.87 |  | g22450<br>09 | 62 | 778 | 2.2e-<br>86 | (Z9734<br>1)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167039 | ATU028<br>979 | ATL8C3<br>9160:1           | nap |  |  |  |  | ATL8C3<br>9160:1           | 0.87 |  | g46783<br>10 | 62 | 596 | 3.6e-<br>65 | (AL049<br>655)  |

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| 167040 | ATU028<br>980 | ..1206                           |     |  |  |  | 13..12<br>06                      | 0.85 | g27919<br>00 | 62 | 319 | 8.1e-<br>20 | putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
|        |               | ATL8C3<br>1992:1<br>135..6<br>5  | nap |  |  |  | ATL8C3<br>1992:1<br>065..6<br>5   |      |              |    |     |             | (AJ000<br>057)<br>PF7<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 167041 | ATU028<br>981 | ATL8C3<br>7165:2<br>097..5<br>52 | nap |  |  |  | ATL8C3<br>7165:1<br>990..1<br>156 | 0.85 | g32830<br>26 | 62 | 339 |             | (AF051<br>562)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167042 | ATU028<br>982 | ATL8S1<br>3137:4<br>6..489       | nap |  |  |  | ATL8S1<br>3137:4<br>6..458        | 0.82 | g21051<br>34 | 62 | 93  | 5.6e-<br>10 | (U6498<br>4)<br>unknow<br>n<br>[Bacte<br>rioph<br>age<br>Mx8]                          |
| 167043 | ATU028<br>983 | ATL8S2<br>8484:1<br>..582        | nap |  |  |  | ATL8S2<br>8484:1<br>10..58<br>2   | 0.82 | g24952<br>07 | 62 | 218 | 3.7e-<br>16 | HYPOTH<br>ETICAL<br>PROTEI<br>N<br>HI0118<br>[Haemo<br>philus]                         |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 167044 | ATU028<br>984 | ATL8C4<br>4710:1<br>..1124       | nap |  |  |  |  | ATL8C4<br>4710:2<br>83..96<br>6  | 0.82 | g36458<br>98 | 62 | 1687 | 4.9e-<br>142 | influenzae<br>[Rd]<br>(U68408) in-frame stop codon; possibly a post-transposition mutation [Zea mays] |
| 167045 | ATU028<br>985 | ATL8C1<br>3675:2<br>064..3<br>61 | nap |  |  |  |  | ATL8C1<br>3675:1<br>847..3<br>74 | 0.81 | g34027<br>49 | 62 | 663  | 2.9e-<br>72  | (AL031187) putative protein [Arabidopsis thaliana]  |
| 167046 | ATU028<br>986 | ATL8C1<br>367:38<br>24..56<br>80 | nap |  |  |  |  | ATL8C1<br>367:38<br>24..53<br>49 | 0.81 | g42638<br>30 | 62 | 1727 | 1.3e-<br>137 | (AC006067) hypothetical protein [Arabidopsis thaliana]  |
| 167047 | ATU028<br>987 | ATL8C3<br>7761:4                 | nap |  |  |  |  | ATL8C3<br>7761:4                 | 0.80 | g23702<br>53 | 62 | 836  | 3.1e-<br>70  | (Y13273)  |

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| 167048 | ATU028<br>988 | ATL8C2<br>7737:1<br>05..17<br>59  | nap |  |  |  |  |  | 119..1<br>350                     |      |  |                             | 62     | 483        |                     | putative protein kinase [Lycopersicon esculentum] (AC005896) unknown protein [Arabidopsis thaliana] |
| 167049 | ATU028<br>989 | ATL8C3<br>9657:1<br>198..2<br>206 | nap |  |  |  |  |  | ATL8C3<br>9657:1<br>198..1<br>917 | 0.77 |  | g42181<br>18                | 62     | 1329       | 2.3e-128            | (AL035353) putative protein [Arabidopsis thaliana]  |
| 167050 | ATU028<br>990 | ATL8S2<br>7196:1<br>..658         | nap |  |  |  |  |  | ATL8S2<br>7196:2<br>6..591        | 0.75 |  | g95567<br>,<br>g36614<br>83 | 62, 46 | 290,<br>88 | 3.5e-27,<br>3.3e-05 | hypothetical protein B - Erwinia amylovora [Erwinia]  |

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| 167051 | ATU028<br>991 | ATL8C3<br>257:96<br>3..1          | nap |  |  |  |  | ATL8C3<br>257:90<br>9..214        | 0.75 | g42061<br>22 | 62 | 648  | 5.8e-<br>63  | (AF097<br>667)<br>protei<br>n<br>phosph<br>atase<br>2C<br>homolo<br>g<br>[Mesem<br>bryant<br>hemum<br>crysta<br>llinum<br>] | amyl<br>lov<br>oral;<br>(AF081<br>284)<br>Hp2<br>[Esche<br>richia<br>coli] |
| 167052 | ATU028<br>992 | ATL8C4<br>7975:2<br>122..4<br>513 | nap |  |  |  |  | ATL8C4<br>7975:2<br>122..4<br>486 | 0.75 | g43099<br>72 | 62 | 2081 | 5.4e-<br>129 | (AC002<br>983)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |  |
| 167053 | ATU028<br>993 | ATL8C2<br>9654:1<br>017..1<br>330 | nap |  |  |  |  | ATL8C2<br>9654:1<br>017..1<br>323 | 0.74 | g14183<br>29 | 62 | 276  | 1.3e-<br>24  | (X9867<br>7)<br>zinc<br>finger<br>protei<br>n<br>[Arabi   |  |

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| 167054 | ATU028<br>994 | ATL8C3<br>277:16<br>19..39<br>05 | nap |  |  |  |  |  | ATL8C3<br>277:16<br>19..39<br>05 | 0.74 | g42630<br>63 | 62 | 1044 | 4.9e-<br>122 | dopsis<br>thalia<br>nal<br>(AC005<br>142)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]        |
| 167055 | ATU028<br>995 | ATL8C3<br>8329:1<br>..1962       | nap |  |  |  |  |  | ATL8C3<br>8329:6<br>05..19<br>11 | 0.73 | g45799<br>13 | 62 | 1196 | 2.4e-<br>87  | (AB023<br>423)<br>sulfat<br>e<br>transp<br>orter<br>[Arabi<br>dopsis<br>thalia<br>nal]                                    |
| 167056 | ATU028<br>996 | ATL8S2<br>2524:5<br>99..1        | nap |  |  |  |  |  | ATL8S2<br>2524:5<br>44..23       | 0.73 | g41848<br>0  | 62 | 208  | 5.4e-<br>20  | HYPOTH<br>ETICAL<br>34.0<br>KD<br>PROTEI<br>N IN<br>GLNA-<br>RBN<br>INTERG<br>ENIC<br>REGION<br>[Esche<br>richia<br>coli] |
| 167057 | ATU028<br>997 | ATL8C2<br>4429:5<br>60..1        | nap |  |  |  |  |  | ATL8C2<br>4429:5<br>15..85       | 0.72 | g33193<br>53 | 62 | 175  | 5.7e-<br>08  | (AF077<br>407)<br>contai  |

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| 167058 | ATU028<br>998 | ATL8C2<br>1800:1<br>444..1 | nap |  |  |  |  |  | 0.71 | g29824<br>38 | 62 | 606 | 2.3e-<br>51 | (AL022<br>224)<br>cadine<br>ne syntha<br>se like<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]      |
| 167059 | ATU028<br>999 | ATL8S2<br>6084:7<br>..399  | nap |  |  |  |  |  | 0.71 | g22583<br>62 | 62 | 169 | 2.9e-<br>06 | (AF007<br>261)<br>NADH<br>dehydr<br>ogenas<br>e, subuni<br>t 6<br>[Recli<br>nomona<br>s americ<br>ana] |

|        |               |                                    |     |  |  |  |                                    |      |              |    |      |   |
|--------|---------------|------------------------------------|-----|--|--|--|------------------------------------|------|--------------|----|------|---|
| 167060 | ATU029<br>000 | ATL8C3<br>7126:8<br>43..1          | nap |  |  |  | ATL8C3<br>7126:6<br>10..29<br>1    | 0.71 | g45861<br>20 | 62 | 954  | (AL049<br>638)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 167061 | ATU029<br>001 | ATL8C1<br>7233:3<br>284..1         | nap |  |  |  | ATL8C1<br>7233:2<br>175..1<br>932  | 0.70 | g44327<br>94 | 62 | 2403 | (AC006<br>437)<br>putati<br>ve<br>Tnp2<br>Tam1<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167062 | ATU029<br>002 | ATL8S2<br>0755:1<br>..415          | nap |  |  |  | ATL8S2<br>0755:7<br>3..345         | 0.69 | g12035<br>6  | 62 | 179  | PROBAB<br>LE<br>TRANSC<br>RIPTIO<br>NAL<br>REGULA<br>TOR<br>FLP<br>[Lacto<br>bacill<br>us<br>casei]                   |
| 167063 | ATU029<br>003 | ATL8C3<br>230:10<br>761..1<br>5136 | nap |  |  |  | ATL8C3<br>230:10<br>761..1<br>3376 | 0.69 | g33778<br>16 | 62 | 1722 | (AF076<br>275)<br>contai<br>ns  |

|        |               |                                  |     |  |  |  |  |  |                                  |      |              |    |     |         |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|-----|---------|--|
| 167064 | ATU029<br>004 | ATL8C2<br>9660:7<br>0..137<br>0  | nap |  |  |  |  |  | ATL8C2<br>9660:8<br>2..133<br>0  | 0.69 | g38596<br>08 | 62 | 751 | 9.9e-80 | similarity to Arabidopsis thaliana retrotransposon Athila (GB:X81801) [Arabidopsis thaliana] |
| 167065 | ATU029<br>005 | ATL8C4<br>9758:1<br>702..3<br>65 | nap |  |  |  |  |  | ATL8C4<br>9758:1<br>625..3<br>65 | 0.68 | g31691<br>81 | 62 | 831 | 4.3e-71 | (AC004401) putative casein kinase II catalytic subunit [Arabidopsis thaliana]                |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 167066 | ATU029<br>006 | ATL8C3<br>9958:2<br>577..1<br>710 | nap |  |  |  |  |  | ATL8C3<br>9958:2<br>181..1<br>710 | 0.68 | g27393<br>87 | 62 | 840  | 5.3e-<br>74  | dopsis<br>thalia<br>na]<br>(AC002<br>505)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 167067 | ATU029<br>007 | ATL8C4<br>7721:2<br>057..1<br>299 | nap |  |  |  |  |  | ATL8C4<br>7721:1<br>928..1<br>866 | 0.68 | g31842<br>87 | 62 | 142  | 3.0e-<br>20  | (AC004<br>136)<br>revers<br>e-<br>transc<br>riptas<br>e-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 167068 | ATU029<br>008 | ATL8C4<br>6055:1<br>120..2<br>599 | nap |  |  |  |  |  | ATL8C4<br>6055:1<br>120..2<br>480 | 0.67 | g43253<br>51 | 62 | 2606 | 2.2e-<br>263 | (AF128<br>394)<br>simila<br>r to<br>Antirr<br>hinum<br>majus<br>(garde<br>n<br>snapdr<br>agon)<br>TNP2<br>protei<br>n |





|        |               |                                 |     |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 167072 | ATU029<br>012 | ATL8C4<br>4241:6<br>90..1       | nap |  |  | ATL8C4<br>4241:6<br>23..56      | 0.63 | g45393<br>13 | 62 | 312 | 1.6e-<br>35 | (AL035<br>679)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167073 | ATU029<br>013 | ATL8C3<br>5498:1<br>122..1      | nap |  |  | ATL8C3<br>5498:8<br>69..12<br>8 | 0.62 | g11760<br>02 | 62 | 148 | 1.1e-<br>14 | HYPOTH<br>ETICAL<br>55.1<br>KD<br>PROTEI<br>N IN<br>FAB1-<br>PES4<br>INTERG<br>ENIC<br>REGION<br>[Sacch<br>aromyc<br>es<br>cerevi<br>siae] |
| 167074 | ATU029<br>014 | ATL8C2<br>175:11<br>60..46<br>6 | nap |  |  | ATL8C2<br>175:11<br>60..56<br>2 | 0.61 | g46999<br>36 | 62 | 807 | 8.7e-<br>73 | (AC007<br>166)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167075 | ATU029<br>015 | ATL8C4<br>8884:1<br>68..59<br>7 | nap |  |  | ATL8C4<br>8884:2<br>75..59<br>7 | 0.60 | g30804<br>39 | 62 | 28  | 0.18        | (AL022<br>605)<br>putati<br>ve   |

|        |               |                                 |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 167076 | ATU029<br>016 | ATL8C1<br>3842:1<br>059..1      | nap |  |  |  | ATL8C1<br>3842:1<br>056..4<br>39 | 0.59 | g26233<br>04 | 62 | 252  | 1.0e-<br>19  | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC002<br>409)<br>simila<br>r to<br>Medica<br>go<br>noduli<br>n N21<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167077 | ATU029<br>017 | ATL8C3<br>5858:1<br>..1045      | nap |  |  |  | ATL8C3<br>5858:1<br>58..10<br>41 | 0.58 | g45876<br>80 | 62 | 910  | 9.2e-<br>91  | (AC007<br>197)<br>putati<br>ve<br>cytoch<br>rome<br>p450<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167078 | ATU029<br>018 | ATL8C1<br>744:41<br>0..345<br>6 | nap |  |  |  | ATL8C1<br>744:41<br>0..343<br>8  | 0.58 | g40380<br>56 | 62 | 2263 | 1.9e-<br>213 | (AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167079 | ATU029        | ATL8C1                          | nap |  |  |  | ATL8C1                           | 0.57 | g48504       | 62 | 1457 | 6.9e-        | (AC007)  |



|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 167083 | ATU029<br>023 | ATL8C3<br>2575:8<br>91..6       | nap |  |  |  |  | ATL8C3<br>2575:8<br>24..69       | 0.55 | g21601<br>49 | 62 | 219  | 1.2e-<br>26  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC000<br>375)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167084 | ATU029<br>024 | ATL8C2<br>8690:7<br>31..1       | nap |  |  |  |  | ATL8C2<br>8690:5<br>91..41<br>0  | 0.55 | g48368<br>85 | 62 | 288  | 9.8e-<br>29  | (AC007<br>260)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167085 | ATU029<br>025 | ATL8C3<br>3497:1<br>152..1      | nap |  |  |  |  | ATL8C3<br>3497:1<br>072..2<br>00 | 0.55 | g49143<br>21 | 62 | 1030 | 9.6e-<br>115 | (AC005<br>489)<br>F14N23<br>.7<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167086 | ATU029<br>026 | ATL8C8<br>271:20<br>49..63<br>2 | nap |  |  |  |  | ATL8C8<br>271:19<br>06..63<br>2  | 0.54 | g44540<br>12 | 62 | 1589 | 1.8e-<br>170 | (AL035<br>396)<br>Pollen<br>-<br>specif<br>ic<br>protei   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|-------------|---|
| 167087 | ATU029<br>027 | ATL8C4<br>5810:1<br>..1242       | nap |  |  |  | ATL8C4<br>5810:1<br>43..10<br>96 | 0.54 | g22448<br>63 | 62 | 1379 | 2.1e-<br>73 | n<br>precu<br>sor<br>like<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167088 | ATU029<br>028 | ATL8C2<br>3732:1<br>542..1<br>91 | nap |  |  |  | ATL8C2<br>3732:1<br>458..1<br>91 | 0.53 | g39478<br>54 | 62 | 109  | 5.8e-<br>06 | (AL034<br>381)<br>conser<br>ved<br>hypoth<br>etical<br>PFAM<br>UPF003<br>1<br>contai<br>ning<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombe] |
| 167089 | ATU029<br>029 | ATL8C4<br>2487:7<br>01..18<br>0  | nap |  |  |  | ATL8C4<br>2487:3<br>94..18<br>0  | 0.52 | g31933<br>29 | 62 | 420  | 1.9e-<br>41 | (AF069<br>299)<br>contai<br>ns  |

|        |               |                                  |     |  |  |  |  |  |  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|------|--------------|----|------|--------------|--|
| 167090 | ATU029<br>030 | ATL8C1<br>370:20<br>09..32<br>96 | nap |  |  |  |  |  |  | 0.52 | g38596<br>08 | 62 | 1946 | 8.7e-<br>181 | similarity<br>to EF-<br>hand<br>calciu<br>m-bindin<br>g domain<br>(Pfam:<br>efhand<br>.hmm,<br>score;<br>16.10)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167091 | ATU029<br>031 | ATL8C4<br>3803:1<br>365..1       | nap |  |  |  |  |  |  | 0.52 | g32818<br>63 | 62 | 1345 |              | (AL031<br>004)<br>putati<br>ve protei<br>n [Arabi<br>dopsis<br>thalia<br>na]   |
| 167092 | ATU029        | ATL8C6                           | nap |  |  |  |  |  |  | 0.51 | g36500       | 62 | 1570 | 3.3e-        | (AC005   |

|        |               |                                 |     |  |  |  |  |                                  |      |    |      |              |   |
|--------|---------------|---------------------------------|-----|--|--|--|--|----------------------------------|------|----|------|--------------|---|
|        | 032           | 66:1..<br>1650                  |     |  |  |  |  | 66:173<br>..900                  | 35   |    |      | 203          | 396)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 167093 | ATU029<br>033 | ATL8C7<br>274:13<br>34..1       | nap |  |  |  |  | ATL8C7<br>274:12<br>66..58       | 0.50 | 62 | 2142 | 3.9e-<br>220 | (AC004<br>481)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 167094 | ATU029<br>034 | ATL8C4<br>370:25<br>16..12<br>0 | nap |  |  |  |  | ATL8C4<br>370:20<br>80..16<br>3  | 0.49 | 62 | 1792 | 1.8e-<br>189 | (AL049<br>482)<br>RNA-<br>direct<br>ed DNA<br>polyme<br>rase-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167095 | ATU029<br>035 | ATL8C2<br>4018:1<br>089..1      | nap |  |  |  |  | ATL8C2<br>4018:1<br>089..2<br>77 | 0.49 | 62 | 1220 | 1.5e-<br>124 | (AC002<br>343)<br>yeast<br>hypoth   |



|        |               |                            |     |  |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 167096 | ATU029<br>036 | ATL8C2<br>5266:1<br>..2023 | nap |  |  |  |  |  | ATL8C2<br>5266:1<br>478..9<br>53 | 0.48 | 944327<br>94 | 62 | 2977 | 1.1e-<br>310 | (AC006<br>437)<br>putati<br>ve<br>Tnp2<br>Tam1<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 167097 | ATU029<br>037 | ATL8C7<br>880:1.<br>.734   | nap |  |  |  |  |  | ATL8C7<br>880:11<br>5..465       | 0.47 | 948357<br>82 | 62 | 598  | 1.4e-<br>58  | (AC007<br>296)<br>Identi<br>cal to<br>gb AF0<br>16621<br>ATP-<br>depend<br>ent<br>Clp<br>protea<br>se<br>proteo<br>lytic<br>subuni<br>t from |

|        |               |                          |     |  |  |  |  |  |                            |      |              |    |     |             |   |
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| 167098 | ATU029<br>038 | ATL8S8<br>970:59<br>7..8 | nap |  |  |  |  |  | ATL8S8<br>970:47<br>4..218 | 0.42 | g38602<br>46 | 62 | 639 | 5.3e-<br>58 | (AC005<br>824)<br>putati<br>ve<br>revers<br>e-<br>transc<br>riptas<br>e<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167099 | ATU029        | ATL8C2                   | nap |  |  |  |  |  | ATL8C2                     | 0.42 | g35823       | 62 | 848 | 1.1e-       | (AC005  |

Arabidopsis thaliana is a member of the PF100574 CLP\_protease family . ESTs gb|F13836 and gb|F13997 come from this gene. []

|        |               |                            |     |  |  |  |  |      |                                  |              |    |      |              |  |  |
|--------|---------------|----------------------------|-----|--|--|--|--|------|----------------------------------|--------------|----|------|--------------|--|--|
|        | 039           | 1118:3<br>57..18<br>92     |     |  |  |  |  |      | 1118:3<br>57..15<br>44           | 28           |    |      |              | 89   | 496)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167100 | ATU029<br>040 | ATL8S3<br>0473:1<br>7..723 | nap |  |  |  |  | 0.42 | ATL8S3<br>0473:1<br>7..674       | g10728<br>44 | 62 | 463  | 1.4e-<br>44  | fixO<br>protei<br>n -<br>Azorhi<br>zobium<br>caulin<br>odans<br>[Azorh<br>izobiu<br>m<br>caulin<br>odans]                    |  |
| 167101 | ATU029<br>041 | ATL8C1<br>5480:1<br>898..1 | nap |  |  |  |  | 0.42 | ATL8C1<br>5480:1<br>698..4<br>11 | g46462<br>32 | 62 | 2236 | 4.4e-<br>228 | (AC007<br>266)<br>putati<br>ve<br>ligand<br>-gated<br>ion<br>channe<br>l<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 167102 | ATU029<br>042 | ATL8C3<br>521:1.<br>.672   | nap |  |  |  |  | 0.41 | ATL8C3<br>521:49<br>2..672       | g48951<br>72 | 62 | 202  | 3.5e-<br>20  | (AC007<br>662)<br>hypoth<br>etical   |  |

|        |               |                                  |     |  |  |  |  |                                 |      |              |    |     |                                |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|--------------------------------|--|
| 167103 | ATU029<br>043 | ATL8C4<br>7684:1<br>..923        | nap |  |  |  |  | ATL8C4<br>7684:4<br>07..89<br>5 | 0.41 | g37575<br>18 | 62 | 995 | 2.7e-<br>98                    | prote<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167104 | ATU029<br>044 | ATL8C8<br>922:28<br>02..43<br>58 | nap |  |  |  |  |                                 |      | g99664       | 62 | 59  | 0.055                          | auxin-<br>induce<br>d<br>protei<br>n<br>AUX2-<br>27 -<br>Arabid<br>opsis<br>thalia<br>na [ ] |
| 167105 | ATU029<br>045 | ATL8C4<br>3420:1<br>..1126       | nap |  |  |  |  |                                 |      | g21601<br>61 | 62 | 530 | (AC000<br>132)<br>F21M12<br>.7 |  |

|        |               |                            |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|---|
| 167106 | ATU029<br>046 | ATL8S5<br>160:1.<br>.403   | nap |  |  |  |  |  |  |  |  |  | g13393<br>8  | 62 | 197 | 4.4e-<br>15 | gene<br>product<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 167107 | ATU029<br>047 | ATL8S2<br>9055:6<br>01..1  | nap |  |  |  |  |  |  |  |  |  | g42404<br>19 | 62 | 188 | 3.4e-<br>16 | (AF080<br>235)<br>oxidor<br>educta<br>se<br>homolo<br>g<br>[Strep<br>tomyce<br>s<br>cyanog<br>enus] |
| 167108 | ATU029<br>048 | ATL8C4<br>262:11<br>1..354 | nap |  |  |  |  |  |  |  |  |  | g18711<br>79 | 62 | 151 | 6.6e-<br>14 | (U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi<br>dopsis<br>thalia]              |



|        |               |                                   |     |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 167112 | ATU029<br>052 | ATL8C3<br>6507:1<br>041..1<br>664 | nap |  |  |  |  |  |  |  | g17325<br>11 | 62 | 599 | 5.3e-<br>32 | protein<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(U6274<br>2) Ran<br>bindin<br>g protei<br>n 1<br>homolo<br>g<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |
| 167113 | ATU029<br>053 | ATL8C8<br>4:833.<br>.1000         | nap |  |  |  |  |  |  |  | g36954<br>08 | 62 | 193 | 1.9e-<br>09 | (AF096<br>373)<br>contai<br>ns simi<br>larity<br>to<br>Solanu<br>m<br>lycope<br>rsicum<br>(tomat<br>o)<br>wound-<br>induce<br>d protei<br>n<br>(GB:X5<br>9882)<br>[Arabi<br>dopsis |













|        |               |                           |     |  |  |  |  |  |  |   |              |    |      |          |  |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|---|--------------|----|------|----------|--|--|
| 167132 | 071           | 8493:1<br>..324           |     |  |  |  |  |  |  | 4 |              | 62 | 118  | 4.8e-09  | PROBAB<br>LE<br>CLPP-<br>LIKE<br>PROTEA<br>SE<br>(ENDOP<br>EPTIDA<br>SE<br>CLP)<br>(ORF<br>203)<br>[March<br>antia<br>polymo<br>rphal] | 6)<br>saliva<br>ry<br>prolin<br>e-rich<br>protei<br>n 1<br>[Homo<br>sapien<br>s] |
|        | ATU029<br>072 | ATL8S4<br>763:1.<br>.381  | nap |  |  |  |  |  |  |   | g11652<br>5  | 62 | 118  | 4.8e-09  |  |  |
| 167133 | ATU029<br>073 | ATL8C5<br>0068:1<br>..661 | nap |  |  |  |  |  |  |   | g32585<br>72 | 62 | 400  | 4.9e-39  | (U8995<br>9)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |  |
| 167134 | ATU029<br>074 | ATL8C1<br>068:16<br>66..1 | nap |  |  |  |  |  |  |   | g47739<br>20 | 62 | 1565 | 4.1e-163 | (AF147<br>259)<br>F10A2.<br>17   |  |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|--------------|---|
| 167135 | ATU029<br>075 | ATL8C4<br>7042:3<br>260..6<br>25  | nap |  |  |  |  |  |  |  |  | g19316<br>53 | 62 | 1537 | 3.4e-<br>164 | (U9597<br>3)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 167136 | ATU029<br>076 | ATL8C4<br>5271:1<br>295..2<br>660 | nap |  |  |  |  |  |  |  |  | g49268<br>66 | 62 | 714  | 5.6e-<br>79  | (AC007<br>509)<br>putati<br>ve<br>amp-<br>bindin<br>g<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167137 | ATU029<br>077 | ATL8C1<br>7972:2<br>237..3<br>564 | nap |  |  |  |  |  |  |  |  | g31281<br>74 | 62 | 368  |              | (AC004<br>521)<br>hypoth<br>etical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                    |



For the purpose of this report, the data was collected from the following sources:

|        |               |                            |     |  |  |                                  |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|----------------------------------|------|--------------|----|-----|-------------|--|
| 167142 | ATU029<br>082 | ATL8S6<br>125:98<br>..575  | nap |  |  | ATL8S6<br>125:24<br>5..451       | 0.98 | g29245<br>07 | 61 | 329 |             | (AL022<br>023)<br>cyclop<br>hilin-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]        |
| 167143 | ATU029<br>083 | ATL8C2<br>5173:1<br>..1287 | nap |  |  | ATL8C2<br>5173:1<br>03..12<br>79 | 0.97 | g45803<br>98 | 61 | 865 | 8.3e-<br>88 | (AC007<br>171)<br>putati<br>ve<br>protei<br>n<br>kinase<br>APK1A<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167144 | ATU029<br>084 | ATL8C3<br>7649:1<br>..725  | nap |  |  | ATL8C3<br>7649:3<br>07..72<br>2  | 0.97 | g14916<br>17 | 61 | 487 | 4.6e-<br>51 | (X9995<br>2)<br>peroxi<br>dase<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 167145 | ATU029<br>085 | ATL8S1<br>1295:6<br>08..1  | nap |  |  | ATL8S1<br>1295:5<br>54..23       | 0.96 | g30250<br>47 | 61 | 224 | 2.8e-<br>14 | HYPOTH<br>ETICAL<br>36.3<br>KD<br>PROTEI<br>N IN<br>PEPN-<br>PYRD<br>INTERG                            |



|        |               |                                   |     |  |  |  |  |  |                                   |      |  |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|--|--------------|----|-----|-------------|---|
| 167146 | ATU029<br>086 | ATL8C4<br>0325:1<br>..937         | nap |  |  |  |  |  | ATL8C4<br>0325:1<br>14..93<br>7   | 0.96 |  | g42635<br>48 | 61 | 927 | 1.7e-<br>97 | ENIC<br>REGION<br>[Esche<br>richia<br>coli]<br>(AC006<br>250)<br>putati<br>ve<br>En/Spm<br>transp<br>oson<br>protei<br>n (mosai<br>c<br>protei<br>n)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167147 | ATU029<br>087 | ATL8C1<br>4132:6<br>87..1         | nap |  |  |  |  |  | ATL8C1<br>4132:6<br>87..49        | 0.95 |  | g31538<br>89 | 61 | 451 | 3.3e-<br>36 | (AF065<br>444)<br>root<br>iron<br>transp<br>orter<br>protei<br>n<br>[Pisum<br>sativu<br>m]  |
| 167148 | ATU029<br>088 | ATL8C4<br>1734:1<br>766..1<br>190 | nap |  |  |  |  |  | ATL8C4<br>1734:1<br>722..1<br>190 | 0.94 |  | g40975<br>47 | 61 | 263 | 5.0e-<br>11 | (U6490<br>6)<br>ATFP3<br>[Arabi<br>dopsis<br>thalia<br>na]  |

|        |               |                                  |     |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 167149 | ATU029<br>089 | ATL8C4<br>4436:5<br>43..16<br>34 | nap |  |  | ATL8C4<br>4436:5<br>43..12<br>74  | 0.94 | g38941<br>65 | 61 | 726  | 1.5e-<br>68  | (AC005<br>312)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 167150 | ATU029<br>090 | ATL8C1<br>5869:3<br>665..1       | nap |  |  | ATL8C1<br>5869:3<br>354..3<br>060 | 0.94 | g38602<br>71 | 61 | 547  | 8.1e-<br>68  | (AC005<br>824)<br>putati<br>ve<br>seleni<br>um-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167151 | ATU029<br>091 | ATL8C3<br>9118:1<br>..1222       | nap |  |  | ATL8C3<br>9118:6<br>2..122<br>2   | 0.92 | g23350<br>94 | 61 | 1088 | 4.8e-<br>107 | (AC002<br>339)<br>putati<br>ve<br>polyga<br>lactur<br>onase<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 167152 | ATU029<br>092 | ATL8C3<br>754:13<br>08..1        | nap |  |  | ATL8C3<br>754:13<br>08..23<br>9   | 0.91 | g45126<br>60 | 61 | 1300 | 3.1e-<br>114 | (AC006<br>931)<br>hypoth<br>etical<br>protei   |

|        |               |                                  |     |  |  |  |  |  |                                   |      |                               |        |             |                             |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|-----------------------------------|------|-------------------------------|--------|-------------|-----------------------------|---|
| 167153 | ATU029<br>093 | ATL8C1<br>5037:1<br>85..10<br>90 | nap |  |  |  |  |  | ATL8C1<br>5037:1<br>85..10<br>39  | 0.91 | g39351<br>61                  | 61     | 636         | 1.3e-<br>69                 | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC004<br>557)<br>F17L21<br>.4<br>[Arabi<br>dopsis<br>thalia<br>nal]                                     |
| 167154 | ATU029<br>094 | ATL8C3<br>6066:1<br>441..1       | nap |  |  |  |  |  | ATL8C3<br>6066:1<br>360..5<br>2   | 0.91 | g46783<br>63                  | 61     | 446         | 6.1e-<br>43                 | (AL049<br>659)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 167155 | ATU029<br>095 | ATL8C4<br>7996:2<br>809..1       | nap |  |  |  |  |  | ATL8C4<br>7996:2<br>725..1<br>174 | 0.90 | g40637<br>40,<br>g35229<br>45 | 61, 45 | 648,<br>324 | 3.2e-<br>48,<br>5.5e-<br>22 | (AC005<br>851)<br>putati<br>ve<br>Na/H<br>antipo<br>rter<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC004<br>411)<br>putati<br>ve<br>cytoch<br>rome |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |  |  |  |              |    |      |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|--|----------------------------------|------|--|--|--|--------------|----|------|-------------|--|
| 167156 | ATU029<br>096 | ATL8C1<br>4684:6<br>92..1        | nap |  |  |  |  |  |  | ATL8C1<br>4684:6<br>01..73       | 0.89 |  |  |  | g24293<br>62 | 61 | 131  | 0.9999<br>3 | P450<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AF020<br>261)<br>prolin<br>e rich<br>protei<br>n<br>[Santa<br>lum<br>album] |
| 167157 | ATU029<br>097 | ATL8C1<br>7688:2<br>93..12<br>31 | nap |  |  |  |  |  |  | ATL8C1<br>7688:2<br>93..12<br>31 | 0.89 |  |  |  | g36680<br>82 | 61 | 126  | 0.077       | (AC004<br>667)<br>putati<br>ve<br>DAL1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                |
| 167158 | ATU029<br>098 | ATL8C2<br>2607:2<br>61..56<br>5  | nap |  |  |  |  |  |  | ATL8C2<br>2607:2<br>61..55<br>6  | 0.89 |  |  |  | g39534<br>64 | 61 | 175  | 0.80        | (AC002<br>328)<br>F20N2.<br>9<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167159 | ATU029<br>099 | ATL8C3<br>7465:1<br>..1710       | nap |  |  |  |  |  |  | ATL8C3<br>7465:1<br>75..17<br>10 | 0.87 |  |  |  | g45389<br>23 | 61 | 1180 |             | (AL049<br>483)<br>predic<br>ted<br>protei<br>n<br>destin   |

[illegible]

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|--|
| 167160 | ATU029<br>100 | ATL8C1<br>6995:3<br>96..17<br>36  | nap |  |  |  |  | ATL8C1<br>6995:3<br>96..17<br>14  | 0.85 | g45843<br>59 | 61 | 632 | 4.8e-<br>59 | (AC006<br>420)<br>hypoth<br>etical<br>protei<br>n.<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 167161 | ATU029<br>101 | ATL8S1<br>8746:1<br>..403         | nap |  |  |  |  | ATL8S1<br>8746:1<br>28..19<br>1   | 0.84 | g37460<br>60 | 61 | 357 | 1.0e-<br>16 | (AC005<br>311)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                              |
| 167162 | ATU029<br>102 | ATL8C2<br>2321:3<br>077..3<br>664 | nap |  |  |  |  | ATL8C2<br>2321:3<br>193..3<br>664 | 0.82 | g38941<br>68 | 61 | 699 | 2.7e-<br>71 | (AC005<br>312)<br>simila<br>r to<br>phloem<br>-<br>specif<br>ic<br>lectin<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167163 | ATU029        | ATL8C2                            | nap |  |  |  |  | ATL8C2                            | 0.80 | g20553       | 61 | 92  | (U7368      |  |

|        |                  |                                  |     |  |  |                                  |              |    |     |             |  |   |
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| 103    | 7483:1<br>..1103 |                                  |     |  |  | 7483:5<br>1..778                 | 86           |    |     |             |  | 1)<br>AlkB<br>[Caulo<br>bacter<br>cresce<br>ntus] |
| 167164 | ATU029<br>104    | ATL8C1<br>6387:2<br>155..7<br>94 | nap |  |  | ATL8C1<br>6387:1<br>440..7<br>94 | g45880<br>01 | 61 | 310 | 3.0e-<br>16 | (AF085<br>279)<br>hypoth<br>etical<br>Ser-<br>Thr<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>nal] |   |
| 167165 | ATU029<br>105    | ATL8C3<br>7183:9<br>4..153<br>4  | nap |  |  | ATL8C3<br>7183:9<br>4..143<br>4  | g36953<br>88 | 61 | 414 |             | (AF096<br>371)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>nal]                    |   |
| 167166 | ATU029<br>106    | ATL8C4<br>4344:1<br>..351        | nap |  |  | ATL8C4<br>4344:1<br>22..35<br>1  | g44163<br>26 | 61 | 140 | 1.1e-<br>07 | (AF105<br>293)<br>methio<br>nine<br>aminop<br>eptida<br>se<br>like<br>protei<br>n; MAP                           |   |

|        |               |                                  |     |  |  |  |                                   |      |              |    |      |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|-------------|---|
| 167167 | ATU029<br>107 | ATL8C2<br>4944:8<br>71..19<br>48 | nap |  |  |  | ATL8C2<br>4944:1<br>355..1<br>889 | 0.75 | g45672<br>29 | 61 | 980  | 4.5e-<br>73 | [Alexa<br>ndrium<br>fundye<br>nse]<br>(AC007<br>119)<br>putati<br>ve<br>pectin<br>methyl<br>esterase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167168 | ATU029<br>108 | ATL8C2<br>01:187<br>2..252       | nap |  |  |  | ATL8C2<br>01:141<br>2..308        | 0.75 | g33343<br>49 | 61 | 1005 | 4.5e-<br>80 | GLYCYL<br>-TRNA<br>SYNTH<br>TASE<br>(GLYCI<br>NE--<br>TRNA<br>LIGASE<br>)<br>(GLYRS<br>)<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 167169 | ATU029<br>109 | ATL8C2<br>893:26<br>5..224<br>1  | nap |  |  |  | ATL8C2<br>893:26<br>5..206<br>9   | 0.74 | g47739<br>20 | 61 | 971  | 1.2e-<br>70 | (AF147<br>259)<br>F10A2.<br>17<br>gene<br>produc<br>t<br>[Arabi<br>dopsis   |

|        |               |                                  |     |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 167170 | ATU029<br>110 | ATL8C1<br>6680:1<br>..3865       | nap |  |  |  | ATL8C1<br>6680:2<br>08..38<br>65 | 0.73 | g45103<br>68 | 61 | 376 | 2.0e-<br>28 | thalia<br>na]<br>(AC007<br>017)<br>putati<br>ve<br>transc<br>riptio<br>n<br>factor<br>E2F5<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167171 | ATU029<br>111 | ATL8C3<br>9246:1<br>..312        | nap |  |  |  | ATL8C3<br>9246:2<br>7..306       | 0.73 | g45811<br>62 | 61 | 176 | 4.1e-<br>08 | (AC006<br>220)<br>putati<br>ve<br>symbio<br>sis-<br>relate<br>d<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 167172 | ATU029<br>112 | ATL8C1<br>8178:2<br>899..5<br>96 | nap |  |  |  | ATL8C1<br>8178:2<br>796..6<br>06 | 0.72 | g45875<br>50 | 61 | 463 | 2.2e-<br>37 | (AC006<br>577)<br>EST<br>gb R64<br>848<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis                                    |



|        |               |                                   |     |  |  |  |  |  |               |  |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|---------------|--|--------------|----|------|--------------|---|
| 167173 | ATU029<br>113 | ATL8C2<br>1741:1<br>..2119        | nap |  |  |  |  | ATL8C2<br>1741:4<br>15..17<br>30                       | 0.72          |  | g18711<br>85 | 61 | 166  | 4.5e-<br>15  | thalia<br>na]<br>(U9043<br>9)<br>seven<br>in<br>absent<br>ia<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167174 | ATU029<br>114 | ATL8C9<br>945:1.<br>.1438         | nap |  |  |  |  | ATL8C9<br>945:55<br>..761                              | 0.71          |  | g36953<br>95 | 61 | 1495 | 2.0e-<br>108 | (AF096<br>372)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>e<br>(Pfam:<br>PF0007<br>8 rvt,<br>E=4.3e<br>-08)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167175 | ATU029<br>115 | ATL8C2<br>2956:1<br>470..4<br>638 | nap |  |  |  |  | ATL8C2<br>2956:1<br>470..3<br>695,<br>ATL8C2<br>2956:4 | 0.70,<br>0.99 |  | g48369<br>30 | 61 | 3120 | 2.4e-<br>310 | (AC006<br>085)<br>Hypoth<br>etical<br>protei<br>n   |

|        |               |                                     |     |  |  |  |  |                                     |      |              |    |      |              |   |
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| 167176 | ATU029<br>116 | ATL8C2<br>8804:7<br>15..1           | nap |  |  |  |  | 558..4<br>354                       | 0.70 | g30470<br>61 | 61 | 326  | 5.2e-<br>36  | [Arabi<br>dopsis<br>thalia<br>na]<br>(AF058<br>825)<br>simila<br>r to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Tall-1<br>(GB: (L<br>47193)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167177 | ATU029<br>117 | ATL8C4<br>1407:1<br>1815..<br>10469 | nap |  |  |  |  | ATL8C4<br>1407:1<br>1785..<br>10469 | 0.70 | g43887<br>32 | 61 | 624  | 7.6e-<br>36  | (AC006<br>413)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF 2<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167178 | ATU029<br>118 | ATL8C3<br>5748:1<br>296..2<br>757   | nap |  |  |  |  | ATL8C3<br>5748:1<br>296..2<br>686   | 0.70 | g29247<br>85 | 61 | 1895 | 1.3e-<br>175 | (AC002<br>334)<br>simila<br>r to<br>(AC002<br>334)<br>simila<br>r to  |





|        |               |                            |     |  |  |  |   |               |                               |        |             |  |
|--------|---------------|----------------------------|-----|--|--|--|---|---------------|-------------------------------|--------|-------------|--|
| 167183 | ATU029<br>123 | ATL8C2<br>7724:6<br>22..1  | nap |  |  |  | ATL8C2<br>7724:4<br>92..14  | 0.67          | g45859<br>24                  | 61     | 185         | na]<br>(AC007<br>211)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167184 | ATU029<br>124 | ATL8C2<br>6272:1<br>..2564 | nap |  |  |  | ATL8C2<br>6272:5<br>7..108<br>9,<br>ATL8C2<br>6272:1<br>809..2<br>417 | 0.67,<br>0.82 | g45859<br>77,<br>g25009<br>81 | 61, 30 | 189,<br>480 | (AC005<br>287)<br>Unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>GLUTAM<br>YL-<br>TRNA<br>SYNTH<br>E<br>TASE<br>(GLUT<br>A<br>MATE--<br>TRNA<br>LIGASE<br>)<br>(GLURS<br>)<br>[Nicot<br>iana<br>tabacu<br>m] |
| 167185 | ATU029<br>125 | ATL8C4<br>936:1.<br>.1843  | nap |  |  |  | ATL8C4<br>936:12<br>3..168  | 0.66          | g42635<br>43                  | 61     | 2102        | (AC006<br>250)<br>putati   |



|        |               |                            |     |  |  |                                  |               |                               |        |             |                             |   |
|--------|---------------|----------------------------|-----|--|--|----------------------------------|---------------|-------------------------------|--------|-------------|-----------------------------|---|
| 167188 | ATU029<br>128 | ATL8C1<br>3741:9<br>..870  | nap |  |  | ATL8C1<br>3741:9<br>..829        | 0.64          | g45586<br>69                  | 61     | 351         | 3.4e-<br>36                 | (AC007<br>063)<br>putati<br>ve<br>vanada<br>te<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167189 | ATU029<br>129 | ATL8C3<br>6411:1<br>..2223 | nap |  |  | ATL8C3<br>6411:5<br>38..20<br>38 | 0.63          | g28326<br>19,<br>g28326<br>20 | 61, 44 | 754,<br>502 | 1.3e-<br>54,<br>5.6e-<br>49 | (Al021<br>711)<br>major<br>intrin<br>sic<br>protei<br>n<br>(MIP)-<br>like<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(Al021<br>711)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167190 | ATU029<br>130 | ATL8C4<br>0591:3<br>016..2 | nap |  |  | ATL8C4<br>0591:1<br>366..2       | 0.63,<br>0.66 | g45443<br>72                  | 61     | 1524        | 2.8e-<br>244                | (AC006<br>920)<br>putati  |

|        |               |                            |     |                                   |  |      |              |    |     |             |   |   |
|--------|---------------|----------------------------|-----|-----------------------------------|--|------|--------------|----|-----|-------------|---|---|
| 167191 | ATU029<br>131 | 17                         | nap | ATL8S2<br>0753:5<br>66..1         | 17,<br>ATL8C4<br>0591:3<br>016..1<br>734 | 0.63 | g11975<br>61 | 61 | 344 | 2.0e-<br>26 | (U4713<br>3)<br>NosF<br>protei<br>n<br>[Rhizo<br>bium<br>melilo<br>til]                               | ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167192 | ATU029<br>132 | ATL8C9<br>511:1.<br>.878   | nap | ATL8C9<br>511:59<br>..878         | ATL8C9<br>511:59<br>..878                | 0.63 | g36680<br>81 | 61 | 158 | 8.1e-<br>21 | (AC004<br>667)<br>putati<br>ve<br>peptid<br>ase<br>[Arabi<br>dopsis<br>thalia<br>na]                  | revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 167193 | ATU029<br>133 | ATL8C1<br>9596:1<br>..2416 | nap | ATL8C1<br>9596:1<br>354..2<br>416 | ATL8C1<br>9596:1<br>354..2<br>416        | 0.63 | g29824<br>37 | 61 | 592 | 1.1e-<br>48 | (AL022<br>224)<br>terpen<br>e<br>cyclas<br>e like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]       |



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| 167194 | ATU029<br>134 | ATL8S1<br>4519:5<br>85..1       | nap |  |  |  | ATL8S1<br>4519:5<br>85..7       | 0.60 | g54952<br>9  | 61 | 371  | 2.1e-<br>30 | na]  |
| 167195 | ATU029<br>135 | ATL8S1<br>0888:2<br>12..61<br>7 | nap |  |  |  | ATL8S1<br>0888:2<br>12..50<br>6 | 0.59 | g38754<br>05 | 61 | 140  | 1.3e-<br>10 | (Z8105<br>2)<br>predic<br>ted<br>using<br>Genefi<br>nder;<br>Simila<br>rity<br>to<br>Mouse<br>diamin<br>e<br>acetyl<br>transf<br>erase<br>(SW:AT<br>DA_MOU<br>SE)<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] |
| 167196 | ATU029        | ATL8C9                          | nap |  |  |  | ATL8C9                          | 0.58 | g33193       | 61 | 2097 | 1.1e-       | (AF077   |

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| 136    | 12:1..<br>3182 |     |  |  |  | 12:116<br>2..307<br>8           | 60           | 166 | 408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167197 | ATU029<br>137  | nap |  |  |  | ATL8C2<br>8750:4<br>94..10<br>6 | 944067<br>64 | 480 | 2.4e-<br>52<br><br>(AC006<br>836)<br>putati<br>ve<br>uridyl<br>yl<br>transf<br>erases<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167198 | ATU029<br>138  | nap |  |  |  | ATL8S9<br>27:448<br>..285       | 947340<br>02 | 716 | 1.5e-<br>74<br><br>(AC007<br>187)<br>putati<br>ve pol<br>polypr<br>oteins<br>[Arabi<br>dopsis   |

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| 167199 | ATU029<br>139 | ATL8C2<br>2905:1<br>..2251 | nap |  |  |  | ATL8C2<br>2905:1<br>65..18<br>61 | 0.56 |  | g22449<br>63            | 61     | 671         | 3.0e-<br>74                 | thalia<br>na] (Z9734<br>0)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]   |
| 167200 | ATU029<br>140 | ATL8C3<br>9372:1<br>943..1 | nap |  |  |  | ATL8C3<br>9372:1<br>721..6<br>7  | 0.54 |  | g20766<br>23,<br>g78787 | 61, 58 | 108,<br>121 | 6.1e-<br>14,<br>3.1e-<br>14 | (Z9515<br>1)<br>PtrB<br>[Mycob<br>acteri<br>um<br>leprae<br>];<br>protei<br>nase<br>II (EC<br>3.4.21<br>.-) -<br>Escher<br>ichia<br>coli<br>[Esche<br>richia<br>coli] |
| 167201 | ATU029<br>141 | ATL8C4<br>8345:5<br>01..1  | nap |  |  |  | ATL8C4<br>8345:4<br>43..60       | 0.53 |  | g44550<br>81            | 61     | 152         | 3.5e-<br>11                 | (AF119<br>621)<br>Ditr<br>[Pseud<br>omonas<br>abiet<br>niphil<br>a]   |
| 167202 | ATU029        | ATL8S2                     | nap |  |  |  | ATL8S2                           | 0.52 |  | g15725                  | 61     | 66          | 0.0011                      | (U6719  |



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| 167206 | ATU029<br>146 | ATL8C2<br>9655:1<br>..2898 | nap |  |  |  |  |  | ATL8C2<br>9655:1<br>94..28<br>98 | 0.47 | g31281<br>74 | 61 | 492 | 4.3e-<br>32 | E-<br>PHOSPH<br>ATE<br>SYNTHA<br>SE 1<br>(UDP-<br>GLUCOS<br>E-<br>FRUCTO<br>SE-<br>PHOSPH<br>ATE<br>GLUCOS<br>YLTRAN<br>SFERAS<br>E 1)<br>[Citru<br>s<br>unshiu<br>] |
| 167207 | ATU029<br>147 | ATL8C4<br>5267:3<br>88..1  | nap |  |  |  |  |  | ATL8C4<br>5267:3<br>64..11<br>8  | 0.46 | g41853<br>09 | 61 | 663 | 2.1e-<br>49 | (AF090<br>446)<br>unknow<br>n<br>[Zea<br>mays]   |
| 167208 | ATU029<br>148 | ATL8S2<br>9893:4<br>40..1  | nap |  |  |  |  |  | ATL8S2<br>9893:4<br>40..27       | 0.44 | g16524<br>57 | 61 | 355 | 1.5e-<br>30 | (D9090<br>5)<br>rehydr<br>in   |

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| 167209 | ATU029<br>149 | ATL8C2<br>3314:2<br>2..695      | nap |  |  |  |  | ATL8C2<br>3314:2<br>2..667      | 0.44 | g46618<br>5  | 61 | 221 | 1.4e-<br>15 | [Synec<br>hocyst<br>is<br>sp.]<br>HYPOTH<br>ETICAL<br>29.6<br>KD<br>PROTEI<br>N IN<br>RIBT-<br>DADB<br>INTERG<br>ENIC<br>REGION<br>(ORFX7<br>)<br>[Bacil<br>lus<br>subtil<br>is] |
| 167210 | ATU029<br>150 | ATL8C3<br>4003:7<br>33..14<br>7 | nap |  |  |  |  | ATL8C3<br>4003:6<br>67..14<br>7 | 0.41 | g45862<br>45 | 61 | 563 | 4.8e-<br>48 | (Al049<br>640)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167211 | ATU029<br>151 | ATL8C4<br>9109:1<br>..1106      | nap |  |  |  |  | ATL8C4<br>9109:1<br>82..35<br>1 | 0.40 | g32929<br>70 | 61 | 116 | 2.5e-<br>10 | (Y1557<br>2)<br>R51H3<br>[Homo<br>sapien<br>s]   |
| 167212 | ATU029<br>152 | ATL8C1<br>6057:8<br>98..16      | nap |  |  |  |  |                                 |      | g14028<br>83 | 61 | 151 | 1.2e-<br>11 | (X9813<br>0)<br>unknow   |

|        |               |                            |     |  |  |  |  |  |  |  |  |              |    |     |              |  |  |
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| 167213 | ATU029<br>153 | ATL8C3<br>4661:2<br>261..1 | nap |  |  |  |  |  |  |  |  | g47536<br>46 | 61 | 991 | 5.4e-<br>108 | (AL049<br>751)<br>putati<br>ve<br>protei<br>n<br>(possi<br>bly<br>fragme<br>nt)<br>[Arabi<br>dopsis<br>thalia<br>na] | n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167214 | ATU029<br>154 | ATL8S9<br>949:53<br>4..78  | nap |  |  |  |  |  |  |  |  | g44164<br>67 | 61 | 109 | 1.4e-<br>08  | (AF125<br>999)<br>dehydr<br>ogenas<br>e dhgA<br>[Mycob<br>acteri<br>um<br>avium]                                     | n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167215 | ATU029<br>155 | ATL8S7<br>003:45<br>4..1   | nap |  |  |  |  |  |  |  |  | g25061<br>52 | 61 | 498 | 4.3e-<br>47  | PROBAB<br>LE<br>OXIDOR<br>EDUCTA<br>SE IN<br>DCP-<br>NOHA<br>INTERG<br>ENIC<br>REGION<br>[Esche<br>richia]           | n<br>[Arabi<br>dopsis<br>thalia<br>na] |







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| 167223 | ATU029<br>163 | ATL8S2<br>3041:1<br>..430  | nap |  |  |  |  |  |  | g17299<br>93 | 61 | 399  | 2.1e-<br>38  | TOLQ<br>PROTEI<br>N<br>[Pseud<br>omonas<br>aerugi<br>nosa]   |
| 167224 | ATU029<br>164 | ATL8C1<br>2870:1<br>..1167 | nap |  |  |  |  |  |  | g42493<br>84 | 61 | 891  | 4.1e-<br>92  | (AC005<br>966)<br>Simila<br>r to<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 167225 | ATU029<br>165 | ATL8C1<br>6386:6<br>76..1  | nap |  |  |  |  |  |  | g46782<br>70 | 61 | 1050 | 5.0e-<br>103 | (AL049<br>660)<br>protei<br>n<br>kinase<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]          |
| 167226 | ATU029<br>166 | ATL8S2<br>5410:1<br>..302  | nap |  |  |  |  |  |  | g26752<br>3  | 61 | 179  | 2.1e-<br>15  | HYPOTH<br>ETICAL<br>18.2<br>KD<br>PROTEI<br>N IN<br>PMI<br>5'REGI<br>ON<br>(ORF1)<br>[Rhizo<br>bium<br>melilo] |

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| 167227 | ATU029<br>167 | ATL8C1<br>6017:3<br>283..1       | nap |  |  |  |  |  |  |  |  | g35137<br>47 | 61 | 2490 | 1.2e-<br>256 | (AF080<br>118)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>es<br>(Pfam;<br>rvt.hm<br>m,<br>score:<br>11.19)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167228 | ATU029<br>168 | ATL8C4<br>9097:1<br>..846        | nap |  |  |  |  |  |  |  |  | g35401<br>81 | 61 | 421  | 5.2e-<br>35  | (AC004<br>122)<br>Unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167229 | ATU029<br>169 | ATL8C1<br>0933:2<br>872..2<br>16 | nap |  |  |  |  |  |  |  |  | g33193<br>60 | 61 | 1912 | 5.8e-<br>162 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia   |

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| 167230 | ATU029<br>170 | ATL8S1<br>5345:1<br>..342        | nap |  |  |  |  |  |  | g73088<br>8  | 61 | 101 | 0.0086      | faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167231 | ATU029<br>171 | ATL8C4<br>4160:9<br>57..11<br>24 | nap |  |  |  |  |  |  | g45811<br>74 | 61 | 133 | 6.5e-<br>10 | (AC006<br>220)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 167232 | ATU029<br>172 | ATL8C4<br>6748:5<br>50..1        | nap |  |  |  |  |  |  | g48368<br>88 | 61 | 469 | 1.1e-<br>25 | (AC007<br>369)<br>Unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                              |



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| 167237 | ATU029<br>177 | ATL8C2<br>6451:9<br>24..1  | nap |  |  |  |  |  |  |  |  |  | g33554<br>71 | 61 | 512 | 2.2e-<br>47 | caviae<br>(AC004<br>218)<br>putati<br>ve<br>lysoph<br>osphol<br>ipase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167238 | ATU029<br>178 | ATL8S1<br>8758:4<br>79..1  | nap |  |  |  |  |  |  |  |  |  | g31834<br>16 | 61 | 185 | 2.3e-<br>16 | TRANSC<br>RIPTIO<br>NAL<br>REGULA<br>TOR<br>KDGR<br>[Esche<br>richia<br>coli]                              |
| 167239 | ATU029<br>179 | ATL8C3<br>52:224<br>7..513 | nap |  |  |  |  |  |  |  |  |  | g49268<br>20 | 61 | 268 | 2.0e-<br>18 | (AC004<br>135)<br>T17H7.<br>5<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167240 | ATU029<br>180 | ATL8C1<br>6892:3<br>67..44 | nap |  |  |  |  |  |  |  |  |  | g31526<br>21 | 61 | 101 | 3.8e-<br>10 | (AC004<br>482)<br>cold<br>acclim<br>ation<br>protei<br>n<br>WCOR41<br>3-like<br>[Arabi                     |

|        |               |                                 |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
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| 167241 | ATU029<br>181 | ATL8C7<br>205:55<br>4..79       | nap |  |  |  |  |  |  |  |  |  | g32362<br>46 | 61 | 363  | 4.1e-<br>37  | dopsis<br>thalia<br>na]<br>(AC004<br>684)<br>putati<br>ve<br>expans<br>in<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]. |
| 167242 | ATU029<br>182 | ATL8C2<br>5836:1<br>747..1      | nap |  |  |  |  |  |  |  |  |  | g42636<br>55 | 61 | 2036 | 4.5e-<br>161 | (AC006<br>136)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 167243 | ATU029<br>183 | ATL8S2<br>0178:3<br>56..56<br>0 | nap |  |  |  |  |  |  |  |  |  | g21211<br>70 | 61 | 171  | 7.8e-<br>11  | hypoth<br>etical<br>protei<br>n<br>(argF-<br>lacZ<br>region<br>) -<br>Escher<br>ichia<br>coli<br>[Esche                        |

|        |               |                            |     |  |  |  |  |  |  |  |  |  |              |    |     |             |   |
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| 167244 | ATU029<br>184 | ATL8C3<br>1969:6<br>32..23 | nap |  |  |  |  |  |  |  |  |  | g33778<br>54 | 61 | 500 | 2.3e-<br>50 | richia<br>colij<br>(AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]             |
| 167245 | ATU029<br>185 | ATL8S2<br>7171:3<br>19..27 | nap |  |  |  |  |  |  |  |  |  | g12885<br>9  | 61 | 239 | 7.8e-<br>20 | NADH-<br>PLASTO<br>QUINON<br>E<br>OXIDOR<br>EDUCTA<br>SE<br>SUBUNI<br>T J<br>(ORF<br>158)<br>[Nicot<br>iana<br>tabacu<br>m] |
| 167246 | ATU029<br>186 | ATL8C4<br>2763:4<br>11..1  | nap |  |  |  |  |  |  |  |  |  | g45585<br>65 | 61 | 354 | 8.0e-<br>23 | (AC007<br>138)<br>predic<br>ted<br>protei<br>n of<br>unknow<br>n<br>functi<br>on<br>[Arabi<br>dopsis                        |



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| 167247 | ATU029<br>187 | ATL8C3<br>8210:1<br>..922         | nap |  |  |  |  |  |  |  |  |  | g23471<br>95                  | 61     | 1268         | 1.2e-<br>91                  | thalia<br>na]<br>(AC002<br>338)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167248 | ATU029<br>188 | ATL8C4<br>6794:1<br>651..3<br>992 | nap |  |  |  |  |  |  |  |  |  | g40380<br>56,<br>g40380<br>57 | 61, 31 | 2670,<br>781 | 1.3e-<br>272,<br>3.2e-<br>41 | (AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167249 | ATU029<br>189 | ATL8C2<br>8216:1<br>8..126<br>1   | nap |  |  |  |  |  |  |  |  |  | g38057<br>58                  | 61     | 1745         | 5.9e-<br>174                 | (AC005<br>693)<br>putati<br>ve<br>gag-<br>protea<br>se<br>polypr   |

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| 167250 | ATU029<br>190 | ATL8C2<br>48:1...<br>416         | nap |  |  |  |  |  |  |  |  |  | g47411<br>98 | 61 | 493  | 5.9e-<br>50  | otein<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AL049<br>746)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167251 | ATU029<br>191 | ATL8C4<br>5783:1<br>..381        | nap |  |  |  |  |  |  |  |  |  | g40380<br>66 | 61 | 425  | 1.4e-<br>28  | (AC005<br>897)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167252 | ATU029<br>192 | ATL8C1<br>7247:1<br>..1505       | nap |  |  |  |  |  |  |  |  |  | g45389<br>84 | 61 | 1290 | 4.0e-<br>133 | (AL049<br>487)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167253 | ATU029<br>193 | ATL8C2<br>5158:1<br>308..2<br>88 | nap |  |  |  |  |  |  |  |  |  | g36872<br>22 | 61 | 84   | 2.6e-<br>05  | (AC005<br>169)<br>hypoth<br>etical<br>protei   |

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|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|-------------|---|
| 167254 | ATU029<br>194 | ATL8C1<br>6116:1<br>100..9<br>5 | nap |  |  |  |  |  |  |  |  | g21300<br>38 | 61 | 735  | 4.3e-<br>79 | n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167255 | ATU029<br>195 | ATL8C9<br>244:1.<br>.3453       | nap |  |  |  |  |  |  |  |  | g45443<br>72 | 61 | 2979 |             | high<br>affini<br>ty<br>nitrat<br>e<br>transp<br>orter<br>homolo<br>g BCH1<br>-<br>barley<br>[Horde<br>um<br>vulgar<br>e]   |
| 167256 | ATU029<br>196 | ATL8S1<br>3663:6<br>69..17      | nap |  |  |  |  |  |  |  |  | g26882<br>97 | 61 | 203  | 1.3e-<br>05 | (AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AE001<br>144)<br>basic<br>membra<br>ne<br>protei<br>n D |

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| 167257 | ATU029<br>197 | ATL8C8<br>761:10<br>92..14<br>71 | nap |  |  |  |  |  |  |  |  |  | g48862<br>86 | 61 | 229 | 7.8e-<br>21 | (bnpD)<br>[Borre<br>lia<br>burgdo<br>rferil]<br>(AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167258 | ATU029<br>198 | ATL8C2<br>6134:8<br>99..16<br>41 | nap |  |  |  |  |  |  |  |  |  | g46999<br>37 | 61 | 604 | 7.1e-<br>65 | (AC007<br>166)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 167259 | ATU029<br>199 | ATL8S3<br>0967:1<br>73..1        | nap |  |  |  |  |  |  |  |  |  | g13506<br>34 | 61 | 108 | 1.2e-<br>05 | CHLORO<br>PLAST<br>50S<br>RIBOSO<br>MAL<br>PROTEI<br>N L23<br>[Sinap<br>is<br>alba]   |
| 167260 | ATU029<br>200 | ATL8C4<br>2596:7<br>26..1        | nap |  |  |  |  |  |  |  |  |  | g45858<br>84 | 60 | 203 | 6.0e-<br>12 | (AC005<br>850)<br>Hypoth<br>etical<br>protei  |

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| 167261 | ATU029<br>201 | ATL8C1<br>6379:6<br>84..18<br>2 | nap |  |  |  |  | ATL8C1<br>6379:5<br>57..21<br>0 | 0.98 | g33778<br>38 | 60 | 370 | 2.9e-<br>27 | n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167262 | ATU029<br>202 | ATL8C1<br>2601:3<br>88..42      | nap |  |  |  |  | ATL8C1<br>2601:3<br>86..77      | 0.98 | g97121<br>9  | 60 | 333 | 1.4e-<br>26 | (U2844<br>4)<br>phosph<br>oenolp<br>yruvat<br>e<br>carbox<br>ykinas<br>e<br>[Cteno<br>cephal<br>ides<br>felis] |
| 167263 | ATU029<br>203 | ATL8S3<br>6:587.<br>.1          | nap |  |  |  |  | ATL8S3<br>6:587.<br>.54         | 0.96 | g26230<br>45 | 60 | 172 | 8.8e-<br>17 | (AE000<br>942)<br>unknown<br>[Metha<br>nobact<br>erium<br>thermo<br>autotr<br>ophicu<br>m]                     |

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| 167264 | ATU029<br>204 | ATL8C4<br>6183:2<br>171:1<br>548 | nap |  |  | ATL8C4<br>6183:2<br>125:1<br>649 | 0.95 | g46999<br>36 | 60 | 782  | 4.6e-<br>59  | (AC007<br>166)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167265 | ATU029<br>205 | ATL8S3<br>0511:5<br>62:25<br>9   | nap |  |  | ATL8S3<br>0511:5<br>13:25<br>9   | 0.95 | g39708<br>11 | 60 | 293  | 2.2e-<br>25  | (AJ130<br>846)<br>7,8-<br>dihydr<br>o-6-<br>hydrox<br>ymethy<br>lpteri<br>n -<br>pyroph<br>osphok<br>inase<br>[Pseud<br>omonas<br>fluore<br>scens] |
| 167266 | ATU029<br>206 | ATL8C3<br>168:58<br>:878         | nap |  |  | ATL8C3<br>168:94<br>:522         | 0.94 | g45672<br>95 | 60 | 1062 | 5.4e-<br>104 | (AC006<br>918)<br>putati<br>ve pol<br>ypr<br>otei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167267 | ATU029<br>207 | ATL8S1<br>8280:5<br>74:1         | nap |  |  | ATL8S1<br>8280:4<br>92:10        | 0.94 | g21480<br>95 | 60 | 458  | 5.3e-<br>42  | TPP-<br>depend<br>ent<br>aceto   |



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| 167271 | ATU029<br>211 | ATL8C2<br>1731:2<br>057..1      | nap |  |  |  | ATL8C2<br>1731:2<br>057..1<br>074 | 0.93 | g42638<br>30 | 60 | 1124 | 5.9e-<br>99 | mays]<br>(AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                     |
| 167272 | ATU029<br>212 | ATL8S6<br>542:61<br>1..1        | nap |  |  |  | ATL8S6<br>542:50<br>1..17         | 0.90 | g26422<br>20 | 60 | 72   |             | (AF030<br>944)<br>microf<br>ilaria<br>l<br>sheath<br>protei<br>n SHP3<br>precu<br>sor<br>[Brugi<br>a<br>malayi<br>] |
| 167273 | ATU029<br>213 | ATL8S2<br>8660:5<br>83..1       | nap |  |  |  | ATL8S2<br>8660:5<br>22..64        | 0.90 | g23183<br>3  | 60 | 734  | 1.3e-<br>72 | COBS<br>PROTEI<br>N<br>[Pseud<br>omonas<br>denitr<br>ifican<br>s]   |
| 167274 | ATU029<br>214 | ATL8S2<br>3463:1<br>46..55<br>4 | nap |  |  |  | ATL8S2<br>3463:1<br>46..51<br>5   | 0.89 | g73126<br>7  | 60 | 312  | 4.3e-<br>28 | RIBOSO<br>MAL<br>LARGE<br>SUBUNI<br>T<br>PSEUDO<br>URIDIN   |



|        |               |                                 |     |  |  |  |  |                                  |      |              |    |     |             |  |
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| 167275 | ATU029<br>215 | ATL8C2<br>4007:8<br>49..10<br>0 | nap |  |  |  |  | ATL8C2<br>4007:5<br>58..10<br>9  | 0.89 | g28530<br>82 | 60 | 581 | 9.6e-<br>27 | E<br>SYNTHA<br>SE A<br>(PSEUD<br>OURIDY<br>LATE<br>SYNTHA<br>SE)<br>(URACI<br>L<br>HYDROL<br>YASE)<br>[Esche<br>richia<br>colij<br>(AL021<br>768)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167276 | ATU029<br>216 | ATL8C1<br>475:58<br>8..1        | nap |  |  |  |  | ATL8C1<br>475:58<br>8..76        | 0.88 | g47339<br>67 | 60 | 319 | 1.1e-<br>27 | (AC007<br>261)<br>envelo<br>pe-<br>like<br>protie<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 167277 | ATU029<br>217 | ATL8C4<br>9014:1<br>246..1      | nap |  |  |  |  | ATL8C4<br>9014:1<br>228..1<br>50 | 0.87 | g16444<br>02 | 60 | 329 | 2.3e-<br>21 | (U7352<br>4)<br>putati<br>ve   |

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| 167278 | ATU029<br>218 | ATL8C3<br>879:1.<br>.1261  | nap |  |  |  |  |  | ATL8C3<br>879:65<br>.1214        | 0.86 | g45585<br>58 | 60 | 522 | 8.6e-<br>54  | ATP/GT<br>P-<br>bindin<br>g<br>protei<br>n<br>[Homo<br>sapien<br>s]                                    |
| 167279 | ATU029<br>219 | ATL8C3<br>1967:1<br>717..1 | nap |  |  |  |  |  | ATL8C3<br>1967:1<br>274..2<br>38 | 0.86 | g30753<br>98 | 60 | 481 | 1.2e-<br>31  | (AC007<br>138)<br>putati<br>ve<br>polyga<br>lactur<br>onidas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167280 | ATU029<br>220 | ATL8C8<br>259:1.<br>.1262  | nap |  |  |  |  |  | ATL8C8<br>259:39<br>2..119<br>1  | 0.86 | g32490<br>76 | 60 | 909 | 1.4e-<br>101 | (AC004<br>473)<br>Simila<br>r to<br>beta<br>glucos<br>idase<br>(bg1A)<br>gb X94                        |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |     |             |   |   |
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| 167281 | ATU029<br>221 | ATL8C1<br>416:22<br>55..68<br>84  | nap |  |  |  |  |  | ATL8C1<br>416:40<br>62..68<br>84  | 0.86 | g45443<br>71 | 60 | 310 | 3.7e-<br>33 | (AC006<br>920)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      | 986<br>from<br>Maniho<br>t<br>escule<br>nta.<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 167282 | ATU029<br>222 | ATL8C3<br>2298:1<br>..520         | nap |  |  |  |  |  | ATL8C3<br>2298:3<br>23..52<br>0   | 0.85 | g45394<br>17 | 60 | 297 | 1.8e-<br>27 | (AL049<br>171)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          | (AL049<br>171)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 167283 | ATU029<br>223 | ATL8C1<br>2985:4<br>571..5<br>097 | nap |  |  |  |  |  | ATL8C1<br>2985:4<br>571..5<br>031 | 0.84 | g44327<br>96 | 60 | 720 | 7.5e-<br>57 | (AC006<br>437)<br>putati<br>ve<br>vsf-1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | (AC006<br>437)<br>putati<br>ve<br>vsf-1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 167284 | ATU029<br>224 | ATL8C9<br>382:1.<br>.1796         | nap |  |  |  | ATL8C9<br>382:1.<br>.1248         | 0.84 |  | g45672<br>83 | 60 | 394  | 2.1e-<br>30  | na]<br>(AC006<br>841)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]              |
| 167285 | ATU029<br>225 | ATL8C4<br>9759:1<br>355..4<br>04  | nap |  |  |  | ATL8C4<br>9759:1<br>329..5<br>77  | 0.83 |  | g44553<br>36 | 60 | 1177 | 1.1e-<br>111 | (AL035<br>525)<br>pectin<br>esterase-<br>like<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167286 | ATU029<br>226 | ATL8C3<br>5275:1<br>335..2<br>549 | nap |  |  |  | ATL8C3<br>5275:1<br>335..2<br>173 | 0.83 |  | g34260<br>44 | 60 | 687  | 6.5e-<br>69  | (AC005<br>168)<br>putative<br>AIG1<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]            |
| 167287 | ATU029<br>227 | ATL8C1<br>36:1..<br>1288          | nap |  |  |  | ATL8C1<br>36:33.<br>.1267         | 0.83 |  | g30804<br>27 | 60 | 625  |              | (AL022<br>604)<br>putative<br>protein   |

|        |               |                                   |     |  |  |  |  |                                   |      |  |              |    |     |             |   |
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| 167288 | ATU029<br>228 | ATL8C4<br>6010:4<br>411..7<br>755 | nap |  |  |  |  | ATL8C4<br>6010:4<br>411..7<br>755 | 0.82 |  | g28326<br>42 | 60 | 172 | 3.1e-<br>18 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL021<br>710)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167289 | ATU029<br>229 | ATL8C9<br>148:16<br>64..11<br>52  | nap |  |  |  |  | ATL8C9<br>148:16<br>37..11<br>52  | 0.81 |  | g38941<br>78 | 60 | 684 |             | (AC005<br>312)<br>putati<br>ve<br>nuclei<br>c acid<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167290 | ATU029<br>230 | ATL8C2<br>0962:9<br>16..15<br>0   | nap |  |  |  |  | ATL8C2<br>0962:7<br>92..26<br>4   | 0.81 |  | g21911<br>37 | 60 | 898 | 3.2e-<br>93 | (AF007<br>269)<br>simila<br>r to<br>the<br>GDSL<br>family<br>of<br>lipoly<br>tic<br>enzyme<br>s                         |

|        |               |                                  |     |  |  |  |  |  |  |                                  |      |  |              |    |     |             |   |
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| 167291 | ATU029<br>231 | ATL8C2<br>4645:2<br>481..7<br>18 | nap |  |  |  |  |  |  | ATL8C2<br>4645:2<br>481..7<br>18 | 0.80 |  | g43097<br>51 | 60 | 808 | 1.8e-<br>74 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>217)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167292 | ATU029<br>232 | ATL8C3<br>4372:1<br>..1490       | nap |  |  |  |  |  |  | ATL8C3<br>4372:1<br>03..14<br>27 | 0.79 |  | g42635<br>22 | 60 | 857 | 1.5e-<br>82 | (AC004<br>044)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                                      |
| 167293 | ATU029<br>233 | ATL8C3<br>5491:1<br>..708        | nap |  |  |  |  |  |  | ATL8C3<br>5491:3<br>15..65<br>0  | 0.79 |  | g26659<br>4  | 60 | 101 | 6.4e-<br>10 | MYROSI<br>NASE<br>MB2<br>(SINIG<br>RINASE<br>)<br>(THIOG<br>LUCOSI<br>DASE)<br>[Sinap<br>is<br>alba]                    |
| 167294 | ATU029<br>234 | ATL8C3<br>2578:1<br>..705        | nap |  |  |  |  |  |  | ATL8C3<br>2578:6<br>64..29<br>9  | 0.78 |  | g37023<br>33 | 60 | 135 | 5.1e-<br>14 | (AC005<br>397)<br>hypo<br>thetical  |

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| 167295 | ATU029<br>235 | ATL8C3<br>4464:1<br>..596  | nap |  |  |  |  |  | ATL8C3<br>4464:3<br>59..26<br>9  | 0.78 | g38205<br>78 | 60 | 147 | 2.8e-<br>11 | protein<br>[Arabidopsis<br>thaliana]<br>(AF084<br>242)<br>GTP-<br>bindin<br>g<br>protein;<br>Cgpa<br>[Caulo<br>bacter<br>cresce<br>ntus] |
| 167296 | ATU029<br>236 | ATL8S1<br>8828:1<br>..523  | nap |  |  |  |  |  | ATL8S1<br>8828:5<br>7..509       | 0.78 | g25014<br>02 | 60 | 429 | 3.7e-<br>21 | PROBAB<br>LE<br>PEPTID<br>E ABC<br>TRANSP<br>ORTER<br>PERMEA<br>SE<br>PROTEI<br>N Y4TQ<br>[Rhizo<br>bium<br>sp.<br>NGR234<br>]           |
| 167297 | ATU029<br>237 | ATL8C4<br>4349:1<br>..1042 | nap |  |  |  |  |  | ATL8C4<br>4349:2<br>45..10<br>42 | 0.77 | g33778<br>53 | 60 | 764 | 1.8e-<br>67 | (AF076<br>274)<br>No<br>defini<br>tion<br>line<br>found  |

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| 167298 | ATU029<br>238 | ATL8C3<br>865:1.<br>.849          | nap |  |  |  |  | ATL8C3<br>865:25<br>6..841        | 0.76 | g47411<br>97 | 60 | 423 | 1.6e-<br>48 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AL049<br>746)<br>aldose<br>1-<br>epimer<br>ase-<br>like<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na] |
| 167299 | ATU029<br>239 | ATL8C6<br>86:742<br>..1465        | nap |  |  |  |  | ATL8C6<br>86:775<br>..1401        | 0.76 | g47536<br>60 | 60 | 688 | 1.3e-<br>72 | (AL049<br>751)<br>putati<br>ve<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]  |
| 167300 | ATU029<br>240 | ATL8C1<br>0190:3<br>432..2<br>034 | nap |  |  |  |  | ATL8C1<br>0190:3<br>401..2<br>034 | 0.76 | g31226<br>71 | 60 | 417 |             | HYPOTH<br>ETICAL<br>RAE1-<br>LIKE<br>PROTEI<br>N [Arabi<br>dopsis<br>thalia<br>na]   |
| 167301 | ATU029<br>241 | ATL8C3<br>7214:1<br>..1099        | nap |  |  |  |  | ATL8C3<br>7214:5<br>86..10        | 0.74 | g95725<br>1  | 60 | 710 |             | (S7741<br>8)<br>oxidor   |





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| 167305 | ATU029<br>245 | ATL8C2<br>3391:6<br>87..1        | nap |  |  |  |  | ATL8C2<br>3391:6<br>87..54       | 0.73 | g38057<br>61 | 60 | 909  | 5.0e-<br>80  | [Popul<br>us<br>tremul<br>ax<br>Populu<br>s<br>tremul<br>oides]<br>(AC005<br>693)<br>unknow<br>n protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167306 | ATU029<br>246 | ATL8C1<br>6989:1<br>07..29<br>89 | nap |  |  |  |  | ATL8C1<br>6989:1<br>07..29<br>89 | 0.73 | g43097<br>48 | 60 | 1201 | 7.0e-<br>119 | (AC006<br>217)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167307 | ATU029<br>247 | ATL8C4<br>5074:1<br>..1858       | nap |  |  |  |  | ATL8C4<br>5074:6<br>0..185<br>8  | 0.72 | g29807<br>69 | 60 | 280  | 8.1e-<br>27  | (AL022<br>198)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167308 | ATU029<br>248 | ATL8S8<br>348:18                 | nap |  |  |  |  | ATL8S8<br>348:18                 | 0.72 | g13621<br>08 | 60 | 204  | 5.2e-<br>11  | histon<br>e H3  |

|        |               |                            |     |  |  |  |  |                            |      |              |    |      |              |   |
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| 167309 | ATU029<br>249 | 5..608                     | nap |  |  |  |  | 5..386                     | 0.72 | g45859<br>70 | 60 | 376  | 2.3e-<br>32  | homolo<br>g -<br>common<br>tobacc<br>o [ ]<br>(AC005<br>287)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167310 | ATU029<br>250 | ATL8C2<br>8493:1<br>001..1 | nap |  |  |  |  | ATL8C2<br>8493:1<br>001..9 | 0.71 | g26502<br>93 | 60 | 99   | 2.2e-<br>06  | (AE001<br>081)<br>trypto<br>phan<br>repres<br>sor<br>bindin<br>g<br>protei<br>n<br>(wrba)<br>[Archaeo<br>globus<br>fulgidus]          |
| 167311 | ATU029<br>251 | ATL8C2<br>6496:1<br>010..1 | nap |  |  |  |  | ATL8C2<br>6496:8<br>34..12 | 0.69 | g21295<br>15 | 60 | 1201 | 5.1e-<br>114 | 1-<br>amino-<br>1-<br>cyclop<br>ropane<br>carbox<br>ylate<br>syntha<br>se -   |

|        |               |                                  |     |  |  |  |  |  |                                  |      |  |              |    |      |             |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|------|--|--------------|----|------|-------------|--|--|
| 167312 | ATU029<br>252 | ATL8C1<br>2659:1<br>..2071       | nap |  |  |  |  |  | ATL8C1<br>2659:3<br>78..11<br>14 | 0.68 |  | g47037<br>3  | 60 | 62   | 0.0029      | (U0004<br>7)<br>ZK418.<br>5 gene<br>produc<br>t<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] | Arabid<br>opsis<br>thalia<br>na<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167313 | ATU029<br>253 | ATL8C2<br>0374:1<br>..827        | nap |  |  |  |  |  | ATL8C2<br>0374:5<br>8..812       | 0.67 |  | g34829<br>75 | 60 | 331  | 1.7e-<br>38 | (AL031<br>369)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |  |
| 167314 | ATU029<br>254 | ATL8C1<br>9593:6<br>70..10<br>63 | nap |  |  |  |  |  | ATL8C1<br>9593:9<br>80..75<br>5  | 0.67 |  | g42622<br>14 | 60 | 593  | 3.0e-<br>57 | (AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |  |
| 167315 | ATU029        | ATL8C4                           | nap |  |  |  |  |  | ATL8C4                           | 0.67 |  | g46462       | 60 | 2623 | 3.0e-       | (AC007   |  |



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|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|-------------|--|
| 167318 | ATU029<br>258 | ATL8C1<br>4618:2<br>040..1<br>211 | nap |  |  |  | ATL8C1<br>4618:1<br>844..1<br>211 | 0.64 | g45126<br>74 | 60 | 1309 | 1.0e-<br>90 | protein<br>(glnQ)<br>[Archaeoglobus<br>fulgidus]                       |
| 167319 | ATU029<br>259 | ATL8C4<br>0807:5<br>57..97        | nap |  |  |  | ATL8C4<br>0807:3<br>17..25<br>7   | 0.64 | g42001<br>22 | 60 | 393  | 1.2e-<br>34 | (AJ009<br>555)<br>hypothetical<br>protein<br>[Arabidopsis<br>thaliana] |
| 167320 | ATU029<br>260 | ATL8S1<br>2658:5<br>45..32        | nap |  |  |  | ATL8S1<br>2658:5<br>24..32        | 0.64 | g11631<br>14 | 60 | 226  | 7.9e-<br>11 | (U4352<br>6)<br>ORF-4<br>[Streptococcus<br>pneumoniae]                 |
| 167321 | ATU029<br>261 | ATL8S2<br>2426:5<br>30..1         | nap |  |  |  | ATL8S2<br>2426:4<br>63..13<br>8   | 0.62 | g11756<br>78 | 60 | 474  | 5.9e-<br>32 | HYPOTHETICAL<br>32.7<br>KD   |

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| 167322 | ATU029<br>262 | ATL8C4<br>3017:1<br>..1809        | nap |  |  |  |  | ATL8C4<br>3017:1<br>98..17<br>23  | 0.59 | g44327<br>98 | 60 | 1186 | 1.9e-<br>95  | PROTEIN IN<br>TRPL-<br>BTUR<br>INTERG<br>ENIC<br>REGION<br>(ORF4)<br>[Esche-<br>richia<br>coli] |
| 167323 | ATU029<br>263 | ATL8C4<br>6947:2<br>125..3<br>782 | nap |  |  |  |  | ATL8C4<br>6947:2<br>134..3<br>598 | 0.59 | g40380<br>49 | 60 | 1903 | 3.5e-<br>196 | (AC006<br>897)<br>hypoth-<br>etical<br>protein<br>[Arabi-<br>dopsis<br>thalia<br>na]            |
| 167324 | ATU029<br>264 | ATL8C3<br>2289:1<br>..1910        | nap |  |  |  |  | ATL8C3<br>2289:1<br>334..1<br>871 | 0.54 | g33866<br>11 | 60 | 713  | 8.3e-<br>67  | (AC004<br>665)<br>unknown<br>protein<br>[Arabi-<br>dopsis<br>thalia<br>na]                      |

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| 167325 | ATU029<br>265 | ATL8C3<br>8357:4<br>96..10<br>52 | nap |  |  |  | ATL8C3<br>8357:6<br>06..99<br>3  | 0.53 | g18711<br>88 | 60 | 149 | 1.1e-<br>16 | na]<br>(U9043<br>9)<br>Zinc<br>finger<br>protei<br>n 8,<br>ZFP8<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167326 | ATU029<br>266 | ATL8C3<br>3375:1<br>..684        | nap |  |  |  | ATL8C3<br>3375:8<br>0..662       | 0.53 | g31278<br>44 | 60 | 786 | 1.5e-<br>79 | (AL023<br>496)<br>hypoth<br>etical<br>protei<br>n<br>[strep<br>tomyce<br>s<br>coelic<br>olor]        |
| 167327 | ATU029<br>267 | ATL8C1<br>5640:1<br>..2770       | nap |  |  |  | ATL8C1<br>5640:6<br>89..25<br>12 | 0.52 | g47738<br>94 | 60 | 772 | 6.5e-<br>70 | (AF076<br>243)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 167328 | ATU029<br>268 | ATL8C2<br>2875:8<br>27..52       | nap |  |  |  | ATL8C2<br>2875:5<br>27..52       | 0.52 | g44172<br>93 | 60 | 917 | 1.3e-<br>87 | (AC007<br>019)<br>unknow<br>n<br>protei<br>n<br>[Arabi   |





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| 273    | 8993:1<br>..584 |     |  |  | 8993:2<br>3..584                 | 0    | 30                   | MOLECU<br>LAR<br>WEIGHT<br>COBALT<br>-<br>CONTAI<br>NING<br>NITRIL<br>E<br>HYDRAT<br>ASE<br>SUBUNI<br>T<br>ALPHA<br>(L-<br>NITRIL<br>ASE)<br>(L-<br>NHASE)<br>[Rhodo<br>coccus<br>rhodoc<br>hrous] |
| 167334 | ATU029<br>274   | nap |  |  | ATL8C1<br>0867:2<br>877..4<br>22 | 0.50 | 2159<br>2.4e-<br>188 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)   |

|        |               |                                 |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 167335 | ATU029<br>275 | ATL8C4<br>8386:1<br>516..1      | nap |  |  |  |  | ATL8C4<br>8386:1<br>510..9<br>4  | 0.50 | g45393<br>86 | 60 | 2321 | 2.8e-<br>200 | [Arabi<br>dopsis<br>thalia<br>nal]<br>(AL035<br>526)<br>extens<br>in-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                      |
| 167336 | ATU029<br>276 | ATL8C9<br>857:70<br>1..183<br>7 | nap |  |  |  |  | ATL8C9<br>857:10<br>54..16<br>92 | 0.49 | g22135<br>87 | 60 | 1177 | 7.1e-<br>93  | (AC000<br>348)<br>T7N9.7<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167337 | ATU029<br>277 | ATL8S2<br>7536:1<br>..451       | nap |  |  |  |  | ATL8S2<br>7536:3<br>17..15<br>4  | 0.48 | g13360<br>82 | 60 | 510  | 5.4e-<br>47  | (U5663<br>4)<br>Glycin<br>e max<br>var.<br>Centur<br>y ascorb<br>ate<br>peroxi<br>dase 2<br>(APx2)<br>mRNA,<br>comple<br>te cds<br>[Glyci<br>ne<br>max] |

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|--------|---------------|-----------------------------------|-----|--|--|-----------------------------------|------|-------------------------------|--------|-------------|-------------|--|
| 167338 | ATU029<br>278 | ATL8C1<br>992:3<br>77..1          | nap |  |  | ATL8C1<br>992:3<br>77..12<br>8    | 0.47 | g23471<br>89                  | 60     | 241         | 3.3e-<br>22 | (AC002<br>338)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167339 | ATU029<br>279 | ATL8C4<br>9951:1<br>940..3<br>163 | nap |  |  | ATL8C4<br>9951:1<br>940..3<br>111 | 0.46 | g37765<br>59                  | 60     | 849         | 5.3e-<br>79 | (AC005<br>388)<br>Strong<br>simila<br>rity<br>to<br>gene<br>F14J9.<br>26<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167340 | ATU029<br>280 | ATL8C1<br>39:571<br>..2086        | nap |  |  | ATL8C1<br>39:571<br>..2037        | 0.46 | g47340<br>15,<br>g42622<br>10 | 60, 32 | 154,<br>187 |             | (AC007<br>112)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>161)<br>simila<br>r to<br>leucin<br>e<br>zipper |

|        |               |                            |     |  |  |  |  |                                 |      |              |    |     |             |   |
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| 167341 | ATU029<br>281 | ATL8C3<br>9012:1<br>..638  | nap |  |  |  |  | ATL8C3<br>9012:4<br>4..638      | 0.43 | g45858<br>77 | 60 | 178 | 1.4e-<br>19 | (AC005<br>850)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 167342 | ATU029<br>282 | ATL8C1<br>7250:1<br>042..1 | nap |  |  |  |  | ATL8C1<br>7250:9<br>68..23<br>7 | 0.42 | g27361<br>23 | 60 | 445 | 1.3e-<br>47 | (AF020<br>842)<br>RPB140<br>[Arist<br>olochi<br>a<br>gigant<br>ea]                            |
| 167343 | ATU029<br>283 | ATL8C1<br>9573:1<br>..2153 | nap |  |  |  |  | ATL8C1<br>9573:5<br>7..204<br>7 | 0.41 | g40637<br>40 | 60 | 450 | 2.6e-<br>41 | (AC005<br>851)<br>putati<br>ve<br>Na/H<br>antipo<br>rter<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167344 | ATU029<br>284 | ATL8C7<br>941:1.<br>.923   | nap |  |  |  |  | ATL8C7<br>941:59<br>9..178      | 0.41 | g11755<br>22 | 60 | 23  | 0.095       | ANKYRI<br>N<br>REPEAT   |

|        |               |                                  |     |  |  |  |  |  |  |                            |      |  |              |    |     |             |  |  |
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| 167345 | ATU029<br>285 | ATL8C4<br>707:60<br>4..100       | nap |  |  |  |  |  |  | ATL8C4<br>707:24<br>3..127 | 0.40 |  | g37383<br>36 | 60 | 154 | 6.4e-<br>07 | (AC005<br>170)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]          | CONTAINING<br>PROTEIN<br>YARN<br>[Saccharomyces<br>cerevisiae] |
| 167346 | ATU029<br>286 | ATL8C3<br>5951:1<br>196..7<br>39 | nap |  |  |  |  |  |  |                            |      |  | g45726<br>77 | 60 | 499 | 6.6e-<br>48 | (AC006<br>954)<br>hypothetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]     |  |
| 167347 | ATU029<br>287 | ATL8C4<br>4942:9<br>0..243<br>9  | nap |  |  |  |  |  |  |                            |      |  | g41851<br>31 | 60 | 197 | 2.1e-<br>14 | (AC005<br>724)<br>putative<br>zinc<br>finger<br>protein<br>[Arabi<br>dopsis<br>na] |  |











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|        | 303           | 8667:1<br>194..1<br>869          |     |  |  |  |  |  |  | 28 |    |  |     |  |  |  | 110         | prote<br>n -<br>maize<br>[Zea<br>mays]   |
| 167364 | ATU029<br>304 | ATL8C4<br>8203:2<br>23..16<br>36 | nap |  |  |  |  |  |  |    | 60 |  | 138 |  |  |  | 2.6e-<br>08 | (U1788<br>7)<br>bZIP<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 167365 | ATU029<br>305 | ATL8C7<br>227:1.<br>.653         | nap |  |  |  |  |  |  |    | 60 |  | 523 |  |  |  | 5.6e-<br>55 | (AL035<br>528)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167366 | ATU029<br>306 | ATL8C7<br>235:18<br>50..1        | nap |  |  |  |  |  |  |    | 60 |  | 75  |  |  |  | 4.4e-<br>05 | (AC007<br>071)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167367 | ATU029<br>307 | ATL8C4<br>4840:1<br>144..1       | nap |  |  |  |  |  |  |    | 60 |  | 80  |  |  |  | 9.7e-<br>05 | pollen<br>-<br>prefer<br>ential<br>protei<br>n -                                       |

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| 167368 | ATU029<br>308 | ATL8S1<br>4827:5<br>88..1         | nap |  |  |  |  |  |  | g44067<br>68 | 60 | 975 | 7.5e-<br>98 | (AC006<br>836)<br>putati<br>ve<br>flavon<br>ol<br>sulfot<br>ransfe<br>rase<br>[Arabi<br>dopsis<br>thalia<br>na] | trumpe<br>t lily<br>[Liliu<br>m<br>longif<br>lorum] |
| 167369 | ATU029<br>309 | ATL8C1<br>5499:4<br>491..6<br>059 | nap |  |  |  |  |  |  | g30803<br>74 | 60 | 507 | 5.3e-<br>51 | (AL022<br>580)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                              |   |
| 167370 | ATU029<br>310 | ATL8C2<br>3211:1<br>..494         | nap |  |  |  |  |  |  | g48952<br>24 | 60 | 204 | 1.2e-<br>21 | (AC007<br>660)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis                      |   |



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| 167375 | ATU029<br>315 | ATL8C3<br>4890:1<br>..1289 | nap |  |  |  |  |  |  |  |  |  | g31281<br>99 | 60 | 289 | 8.5e-<br>23 | n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 167376 | ATU029<br>316 | ATL8C2<br>0612:1<br>..689  | nap |  |  |  |  |  |  |  |  |  | g39280<br>96 | 60 | 294 | 2.1e-<br>24 | (AC005<br>770)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167377 | ATU029<br>317 | ATL8C1<br>9794:1<br>..1142 | nap |  |  |  |  |  |  |  |  |  | g44688<br>04 | 60 | 658 | 1.5e-<br>67 | (AL035<br>601)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 167378 | ATU029<br>318 | ATL8C3<br>7970:1<br>..1599 | nap |  |  |  |  |  |  |  |  |  | g45811<br>64 | 60 | 817 | 2.3e-<br>86 | (AC006<br>220)<br>putati<br>ve   |

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| 167379 | ATU029<br>319 | ATL8C3<br>1055:2<br>520..1 | nap |  |  |  |  |  |  |  |  |  | g37790<br>21 | 60 | 2458 | 8.0e-<br>259 | polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167380 | ATU029<br>320 | ATL8S9<br>040:1.<br>.430   | nap |  |  |  |  |  |  |  |  |  | g45393<br>59 | 60 | 475  | 4.4e-<br>47  | (AC005<br>171)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167381 | ATU029<br>321 | ATL8C7<br>650:70<br>8..1   | nap |  |  |  |  |  |  |  |  |  | g23927<br>63 | 60 | 400  | 1.2e-<br>36  | (AL049<br>525)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 167382 | ATU029        | ATL8S1                     | nap |  |  |  |  |  |  |  |  |  | g11084       | 60 | 119  | 0.10         | (AC002<br>534)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
|        |               |                            |     |  |  |  |  |  |  |  |  |  |              |    |      |              | prolin  |

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| 167383 | 322           | 8067:1<br>..447           |     |  |  |  |  |  |  |  |  |  | 9 |  | 60 | 1280 | 1.0e-<br>111 | e-rich<br>protei<br>n -<br>mouse<br>[Mus<br>muscul<br>us]<br>(AC005<br>499)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167384 | ATU029<br>324 | ATL8C4<br>4363:7<br>60..1 | nap |  |  |  |  |  |  |  |  |  |   |  | 60 | 638  | 3.7e-<br>57  | (AC002<br>130)<br>F1N21.<br>1<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167385 | ATU029<br>325 | ATL8S1<br>252:1.<br>.224  | nap |  |  |  |  |  |  |  |  |  |   |  | 60 | 207  | 2.3e-<br>18  | (AC006<br>437)<br>putati<br>ve<br>univer<br>sal<br>minici<br>rcle<br>sequen<br>ce<br>bindin<br>g<br>protei<br>n<br>[Arabi                           |







|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 167393 | ATU029<br>333 | ATL8C8<br>317:1.<br>.886          | nap |  |  |  |  |  |  |  |  | g34829<br>19 | 60 | 402 | 4.1e-<br>48 | transc<br>riptas<br>e<br>[Gossy<br>pium<br>barbad<br>ense]<br>(AC003<br>970)<br>Putati<br>ve<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167394 | ATU029<br>334 | ATL8C4<br>3408:1<br>457..1<br>163 | nap |  |  |  |  |  |  |  |  | g37765<br>70 | 60 | 337 |             | (AC005<br>388)<br>Simila<br>r to<br>T3IE10<br>.22<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167395 | ATU029<br>335 | ATL8C2<br>6118:1<br>563..1        | nap |  |  |  |  |  |  |  |  | g13621<br>62 | 60 | 807 | 5.3e-<br>70 | beta-<br>glucos<br>idase<br>BQ60<br>precu<br>sor -<br>barley<br>[Horde<br>um<br>vulgar<br>e]   |
| 167396 | ATU029        | ATL8S1                            | nap |  |  |  |  |  |  |  |  | g25013       | 60 | 214 | 1.2e-       | HYPOTH   |

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| 336    | 1125:5<br>70..69 |                            |     |  |  |  |  |  |  | 59           |    |      |              | 17 | ETICAL<br>TRANSK<br>ETOLAS<br>E<br>FAMILY<br>PROTEI<br>N Y4MO<br>[Rhizo<br>bium<br>sp.<br>NGR234<br>]                               |
| 167397 | ATU029<br>337    | ATL8S2<br>7621:1<br>..414  | nap |  |  |  |  |  |  | g17097<br>93 | 60 | 123  | 3.0e-<br>05  |    | SALIVA<br>RY<br>PROLIN<br>E-RICH<br>PROTEI<br>N PO<br>(ALLEL<br>E M)<br>(CONTA<br>INS:<br>PEPTID<br>E P-D)<br>[Homo<br>sapien<br>s] |
| 167398 | ATU029<br>338    | ATL8C3<br>3429:1<br>583..1 | nap |  |  |  |  |  |  | g42638<br>30 | 60 | 1455 | 2.3e-<br>126 |    | (AC006<br>067)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167399 | ATU029<br>339    | ATL8C3<br>3399:1<br>..695  | nap |  |  |  |  |  |  | g46783<br>36 | 60 | 397  | 4.6e-<br>38  |    | (AL049<br>658)<br>putati  |

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| 167400 | ATU029<br>340 | ATL8C4<br>1591:1<br>..671  | nap |  |  |  |  |                                  |      | g49143<br>58 | 60 | 178 | 1.5e-<br>22 | (AC007<br>289)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 167401 | ATU029<br>341 | ATL8C3<br>4393:8<br>70..1  | nap |  |  |  |  | ATL8C3<br>4393:8<br>70..23<br>0  | 0.99 | g36680<br>86 | 59 | 661 | 6.1e-<br>49 | (AC004<br>667)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 167402 | ATU029<br>342 | ATL8C2<br>7663:1<br>129..1 | nap |  |  |  |  | ATL8C2<br>7663:1<br>117...4<br>8 | 0.99 | g26513<br>08 | 59 | 978 |             | (AC002<br>336)<br>putati<br>ve<br>myosin<br>heavy<br>chain<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167403 | ATU029<br>343 | ATL8C4<br>9038:7           | nap |  |  |  |  | ATL8C4<br>9038:8                 | 0.98 | g45389<br>64 | 59 | 792 | 1.0e-<br>81 | (AL049<br>488)  |



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| 167407 | ATU029<br>347 | ATL8C3<br>8155:7<br>95..1  | nap |  |  |  |  | ATL8C3<br>8155:7<br>74..15<br>9 | 0.98 |  | g43252<br>82 | 59 | 488 | 8.5e-<br>54 | protein<br>product<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167408 | ATU029<br>348 | ATL8S1<br>2758:6<br>2..561 | nap |  |  |  |  | ATL8S1<br>2758:6<br>2..461      | 0.97 |  | g31283<br>60 | 59 | 398 | 4.5e-<br>38 | (AF123<br>310)<br>NAC<br>domain<br>protein<br>n NAM<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AF010<br>496)<br>2-<br>hydrox<br>yhepta<br>-2,4-<br>diene-<br>1,7-<br>dioate<br>isomer<br>ase/5-<br>carbox<br>ymethy<br>1-2-<br>oxo-<br>hex-3-<br>ene-<br>1,7-<br>dioate<br>decarb<br>oxylas<br>e |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
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| 167409 | ATU029<br>349 | ATL8C4<br>6773:1<br>347..3<br>38 | nap |  |  |  |  | ATL8C4<br>6773:1<br>297..4<br>22 | 0.97 | g28275<br>48 | 59 | 849  | 2.6e-<br>79  | [Rhodo<br>bacter<br>capsul<br>atus]<br>(AL021<br>635)<br>cytoch<br>rome<br>P450 -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 167410 | ATU029<br>350 | ATL8S1<br>9399:5<br>10..1        | nap |  |  |  |  | ATL8S1<br>9399:5<br>08..46       | 0.97 | g49029<br>87 | 59 | 222  | 7.0e-<br>20  | (D8353<br>6)<br>Hypoth<br>etical<br>31.3<br>kd<br>protei<br>n in<br>alpA-<br>gabD<br>interg<br>enic<br>region<br>(o273)<br>[Esche<br>richia<br>coli] |
| 167411 | ATU029<br>351 | ATL8C1<br>8625:9<br>08..1        | nap |  |  |  |  | ATL8C1<br>8625:9<br>08..65       | 0.97 | g46894<br>48 | 59 | 1374 | 3.3e-<br>145 | (AC006<br>267)<br>putati<br>ve<br>xylan<br>endohy  |







|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 167416 | ATU029<br>356 | ATL8C1<br>0226:1<br>574..1<br>314 | nap |  |  |  | ATL8C1<br>0226:1<br>500..1<br>314 | 0.92 | g40068<br>57 | 59 | 375  |              | gen...<br>[<br>(Z9970<br>7)<br>photos<br>ystem<br>II<br>oxygen<br>-<br>evolvi<br>ng<br>comple<br>x like<br>protei<br>n<br>(parti<br>al)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167417 | ATU029<br>357 | ATL8C2<br>0192:7<br>80..1         | nap |  |  |  | ATL8C2<br>0192:4<br>90..10<br>1   | 0.91 | g32506<br>89 | 59 | 1215 | 2.3e-<br>125 | (Al024<br>486)<br>chitin<br>ase -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167418 | ATU029<br>358 | ATL8C4<br>4239:1<br>..887         | nap |  |  |  | ATL8C4<br>4239:1<br>83..88<br>7   | 0.91 | g22448<br>60 | 59 | 499  | 9.0e-<br>77  | (Z9733<br>7)<br>cucumi<br>sin<br>[Arabi<br>dopsis<br>thalia<br>na]   |

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|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 167419 | ATU029<br>359 | ATL8C4<br>8538:8<br>957..6<br>296 | nap |  |  |  | ATL8C4<br>8538:8<br>909..7<br>539 | 0.91 | g33193<br>60 | 59 | 2222 | 2.1e-<br>169 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167420 | ATU029<br>360 | ATL8C2<br>142:1.<br>.776          | nap |  |  |  | ATL8C2<br>142:48<br>5..305        | 0.90 | g22810<br>85 | 59 | 465  | 8.0e-<br>36  | (AC002<br>333)<br>CTR1<br>protei<br>n<br>kinase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167421 | ATU029<br>361 | ATL8S2<br>9377:4<br>97..1         | nap |  |  |  | ATL8S2<br>9377:4<br>97..27        | 0.90 | g11769<br>80 | 59 | 177  | 2.9e-<br>07  | HYPOTH<br>ETICAL<br>OXIDOR<br>EDUCTA<br>SE IN<br>HTPG-<br>ALDX<br>INTERG  |

|        |               |                                  |     |  |  |  |  |  |  |               |              |    |     |             |   |
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| 167422 | ATU029<br>362 | ATL8C2<br>836:14<br>24..31<br>64 | nap |  |  |  |  |  | ATL8C2<br>836:14<br>24..31<br>48                                     | 0.89          | g42046<br>95 | 59 | 447 | 8.7e-<br>41 | ENIC<br>REGION<br>[Bacil<br>lus<br>subtil<br>is]<br>(AF117<br>062)<br>putati<br>ve<br>inosit<br>ol<br>polyph<br>osphat<br>e 5-<br>phosph<br>atase<br>At5P1<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167423 | ATU029<br>363 | ATL8C4<br>501:42<br>02..1        | nap |  |  |  |  |  | ATL8C4<br>501:24<br>22..17<br>0,<br>ATL8C4<br>501:42<br>02..32<br>12 | 0.89,<br>0.88 | g45393<br>47 | 59 | 357 | 5.0e-<br>25 | (AL035<br>539)<br>putati<br>ve<br>growth<br>regula<br>tor<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167424 | ATU029<br>364 | ATL8S1<br>0597:4<br>9..498       | nap |  |  |  |  |  | ATL8S1<br>0597:4<br>9..492   | 0.89          | g11757<br>64 | 59 | 334 | 2.0e-<br>29 | HYPOTH<br>ETICAL<br>OXIDOR<br>EDUCTA<br>SE  |

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| 167425 | ATU029<br>365 | ATL8C2<br>7303:8<br>66..33 | nap |  |  |  |  |  | ATL8C2<br>7303:1<br>96..33       | 0.89 |  | g45672<br>95 | 59 | 790 |             |  | HI1430<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd]  |
| 167426 | ATU029<br>366 | ATL8C1<br>8750:1<br>897..1 | nap |  |  |  |  |  | ATL8C1<br>8750:1<br>451..1<br>24 | 0.89 |  | g63961<br>3  | 59 | 205 | 1.4e-<br>11 |  | (S7293<br>1) T-<br>cell<br>recept<br>or<br>alpha<br>chain<br>consta<br>nt<br>region<br>(c6.1A<br>produc<br>t, T-<br>cell<br>recept<br>or<br>alpha<br>chain-<br>c6.1A<br>fusion<br>protei<br>n=c6.1<br>A-TCR<br>C |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 167427 | ATU029<br>367 | ATL8C1<br>8713:1<br>..1391       | nap |  |  |  |  | ATL8C1<br>8713:6<br>8..139<br>1  | 0.89 | g43887<br>22 | 59 | 1136 | 9.2e-<br>111 | (AC006<br>413)<br>putati<br>ve<br>centro<br>meric<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 167428 | ATU029<br>368 | ATL8C1<br>2235:9<br>4..265<br>9  | nap |  |  |  |  | ATL8C1<br>2235:9<br>4..259<br>4  | 0.89 | g46806<br>61 | 59 | 195  | 9.9e-<br>11  | (AF132<br>945)<br>CGI-11<br>protei<br>n<br>[Homo<br>sapien<br>s]  |
| 167429 | ATU029<br>369 | ATL8C4<br>6022:1<br>473..1<br>72 | nap |  |  |  |  | ATL8C4<br>6022:1<br>295..2<br>01 | 0.89 | g31525<br>59 | 59 | 600  | 3.6e-<br>59  | (AC002<br>986)<br>Simila<br>rity<br>to A.<br>thalia<br>na<br>gene<br>produc<br>t<br>F21M12<br>.20,<br>gb AC0<br>00132.<br>EST |

|        |               |                           |     |  |  |  |  |  |                                 |      |  |  |              |    |     |             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|---------------------------------|------|--|--|--------------|----|-----|-------------|--|
| 167430 | ATU029<br>370 | ATL8S2<br>1164:1<br>..458 | nap |  |  |  |  |  | ATL8S2<br>1164:4<br>2..374      | 0.88 |  |  | g42493<br>79 | 59 | 76  | 0.0002<br>6 | gb 225<br>651<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167431 | ATU029<br>371 | ATL8S2<br>4609:5<br>71..1 | nap |  |  |  |  |  | ATL8S2<br>4609:5<br>71..22<br>1 | 0.88 |  |  | g24672<br>24 | 59 | 107 | 0.0001<br>2 | (X9294<br>6)<br>hypothe<br>tical<br>protei   |



|        |               |                            |     |  |  |  |  |  |  |                            |      |              |    |     |             |  |
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| 167432 | ATU029<br>372 | ATL8C2<br>303:12<br>01..1  | nap |  |  |  |  |  |  | ATL8C2<br>303:10<br>32..75 | 0.88 | g30470<br>98 | 59 | 591 | 7.2e-<br>63 | n [Lacto<br>coccus<br>lactis<br>]                              |
| 167433 | ATU029<br>373 | ATL8S1<br>641:57<br>7..1   | nap |  |  |  |  |  |  | ATL8S1<br>641:50<br>6..38  | 0.88 | g17305<br>53 | 59 | 492 | 8.1e-<br>25 | PHOH-<br>LIKE<br>PROTEI<br>N<br>[Bacil<br>lus<br>subtil<br>is] |
| 167434 | ATU029<br>374 | ATL8C1<br>4064:1<br>183..1 | nap |  |  |  |  |  |  | ATL8C1<br>4064:7<br>74..24 | 0.87 | g45593<br>51 | 59 | 815 | 1.0e-<br>65 | (AC006<br>585)<br>hypoth<br>etical<br>protei<br>n              |

|        |               |                           |     |  |  |  |  |                            |      |              |    |      |       |   |
|--------|---------------|---------------------------|-----|--|--|--|--|----------------------------|------|--------------|----|------|-------|---|
| 167435 | ATU029<br>375 | ATL8C9<br>097:1.<br>.4027 | nap |  |  |  |  | ATL8C9<br>097:23<br>..3538 | 0.87 | g48504<br>04 | 59 | 2027 |       | [Arabi<br>dopsis<br>thalia<br>nal]<br>(AC007<br>357)<br>Simila<br>r to<br>gb AF0<br>38007<br>FIC1<br>gene<br>from<br>Homo<br>sapien<br>s and<br>is a<br>member<br>of the<br>PF 001<br>22 E1-<br>E2<br>ATPase<br>family<br>.<br>ESTs<br>gb T45<br>045<br>and<br>gb AA3<br>94473<br>come<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC004 |
| 167436 | ATU029        | ATL8C1                    | nap |  |  |  |  | ATL8C1                     | 0.86 | g32985       | 59 | 89   | 4.5e- | (AC004  |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |    |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|----|--|
| 167437 | 376           | 259:74<br>0..114<br>6             |     |  |  |  | 259:76<br>7..100<br>2             | 0.86 | g44067<br>96 | 59 | 872 | 3.1e-<br>75 | 08 | 681)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                 |
|        | ATU029<br>377 | ATL8C4<br>6968:1<br>839..2<br>925 | nap |  |  |  | ATL8C4<br>6968:1<br>839..2<br>491 | 0.86 | g44067<br>96 | 59 | 872 | 3.1e-<br>75 |    | (AC006<br>304)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 167438 | ATU029<br>378 | ATL8C4<br>3526:5<br>342..4<br>462 | nap |  |  |  | ATL8C4<br>3526:5<br>170..4<br>462 | 0.86 | g45899<br>54 | 59 | 298 |             |    | (AC007<br>169)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 167439 | ATU029<br>379 | ATL8C1<br>2689:2<br>217..9<br>35  | nap |  |  |  | ATL8C1<br>2689:1<br>426..1<br>017 | 0.85 | g40564<br>25 | 59 | 416 | 6.8e-<br>43 |    | (AC005<br>322)<br>ESTs<br>gb H36<br>249,<br>gb AA5<br>9732<br>and<br>gb AA6<br>51219<br>come |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |   |
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| 167440 | ATU029<br>380 | ATL8C4<br>027:1.<br>.2906  | nap |  |  |  |  | ATL8C4<br>027:51<br>9..290<br>6  | 0.84 | g33193<br>60 | 59 | 2272 | 5.9e-<br>201 | from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167441 | ATU029<br>381 | ATL8C1<br>6406:3<br>809..1 | nap |  |  |  |  | ATL8C1<br>6406:3<br>809..9<br>87 | 0.83 | g40380<br>56 | 59 | 1985 | 4.6e-<br>204 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167442 | ATU029<br>382 | ATL8C4<br>6565:2           | nap |  |  |  |  | ATL8C4<br>6565:2                 | 0.83 | g29613<br>74 | 59 | 3099 | 0.0          | (AC005<br>897)<br>putati<br>ve<br>transp<br>oson<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              | (AL022<br>141)  |

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| 167443 | ATU029<br>383 | 403..1                    | nap |  |  |  |  | 403..9<br>0                | 0.82 | g43766<br>60 | 59 | 151 | 8.4e-<br>14 | (AE001<br>622)<br>SAM-<br>Depend<br>ent<br>Methyt<br>ransfe<br>rase<br>[Chlam<br>ydia<br>pneumo<br>niae]                   | putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167444 | ATU029<br>384 | ATL8S1<br>3462:4<br>26..1 | nap |  |  |  |  | ATL8S2<br>4611:5<br>43..18 | 0.81 | g40985<br>77 | 59 | 708 | 1.9e-<br>69 | (U7973<br>5) RNA<br>polyme<br>rase<br>ALPHA<br>subuni<br>t<br>[Xanth<br>omonas<br>campes<br>tris<br>pv.<br>campes<br>tris] |   |
| 167445 | ATU029<br>385 | ATL8C1<br>0739:4          | nap |  |  |  |  | ATL8C1<br>0739:4           | 0.80 | g42630<br>62 | 59 | 336 | 1.2e-<br>35 | (AC005<br>142)   |   |

|        |               |                            |     |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|----------------------------|-----|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 167446 | ATU029<br>386 | ATL8C8<br>85:131<br>4..406 | nap |  |  |  | 0..239<br>3                     | 0.79 | g45672<br>29 | 59 | 375 | 6.8e-<br>30 | hypothetical protein [Arabidopsis thaliana] (AC007119) putative pectin methyl esterase [Arabidopsis thaliana] |
| 167447 | ATU029<br>387 | ATL8S5<br>429:1.<br>.435   | nap |  |  |  | ATL8S5<br>429:74<br>..435       | 0.79 | g11841<br>2  | 59 | 118 | 0.72        | DEDAN PROTEIN (DSG-1) PROTEIN [Escherichia coli]  |
| 167448 | ATU029<br>388 | ATL8C4<br>1760:1<br>350..1 | nap |  |  |  | ATL8C4<br>1760:1<br>328..3<br>8 | 0.79 | g42630<br>63 | 59 | 816 | 1.5e-<br>64 | (AC005142) hypothetical protein [Arabidopsis thaliana]  |
| 167449 | ATU029        | ATL8S2                     | nap |  |  |  | ATL8S2                          | 0.79 | g19427       | 59 | 341 | 1.8e-       | Chain   |



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|--------|---------------|----------------------------|-----|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 167452 | ATU029<br>392 | ATL8C3<br>616:1.<br>.2112  | nap |  |  |  | ATL8C3<br>616:49<br>7..206<br>3 | 0.78 | g44173<br>09 | 59 | 1971 | 1.7e-<br>178 | (AC006<br>446)<br>putati<br>ve pol<br>ypr<br>otei<br>with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167453 | ATU029<br>393 | ATL8C2<br>227:1.<br>.838   | nap |  |  |  | ATL8C2<br>227:19<br>6..781      | 0.77 | g42635<br>48 | 59 | 599  | 3.0e-<br>60  | (AC006<br>250)<br>putati<br>ve<br>En/Spm<br>transp<br>oson<br>protei<br>n<br>(mosai<br>c<br>protei<br>n)<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 167454 | ATU029<br>394 | ATL8C4<br>5345:2<br>084..8 | nap |  |  |  | ATL8C4<br>5345:2<br>013..8      | 0.75 | g30803<br>74 | 59 | 325  | 4.5e-<br>21  | (AL022<br>580)<br>putati<br>ve<br>protei<br>n  |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |   |   |
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| 167455 | ATU029<br>395 | ATL8C2<br>3478:1<br>..944        | nap |  |  |  |  | ATL8C2<br>3478:7<br>5..503       | 0.75 | g42622<br>11 | 59 | 891 | 6.0e-<br>63   | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>161)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 167456 | ATU029<br>396 | ATL8S1<br>2127:1<br>..392        | nap |  |  |  |  | ATL8S1<br>2127:9<br>9..311       | 0.74 | g11500<br>7  | 59 | 111 | 4.5e-<br>08   | DETHIO<br>BIOTIN<br>SYNTHE<br>TASE<br>(DETHI<br>OBIOTI<br>N<br>SYNTHA<br>SE)<br>(DTB<br>SYNTHE<br>TASE)<br>(DTBS)<br>[Bacil<br>lus<br>sphaer<br>icus] |
| 167457 | ATU029<br>397 | ATL8C5<br>904:25<br>12..40<br>32 | nap |  |  |  |  | ATL8C5<br>904:25<br>12..40<br>32 | 0.73 | g28276<br>52 | 59 | 556 | (AL021<br>637)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia |   |



|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |  |
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| 167461 | ATU029<br>401 | ATL8S2<br>2106:4<br>97..1  | nap |  |  |  | ATL8S2<br>2106:4<br>97..65       | 0.70 | g38613<br>62 | 59 | 177  | 4.7e-<br>16  | na]<br>(AJ235<br>273)<br>SINGLE<br>-<br>STRAND<br>BINDIN<br>G<br>PROTEI<br>N<br>(ssb)<br>[Ricke<br>ttsia<br>prowaz<br>ekilj] |
| 167462 | ATU029<br>402 | ATL8C7<br>618:69<br>0..1   | nap |  |  |  | ATL8C7<br>618:69<br>0..199       | 0.70 | g47339<br>60 | 59 | 459  | 3.2e-<br>37  | (AC007<br>294)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 167463 | ATU029<br>403 | ATL8C2<br>5338:2<br>146..1 | nap |  |  |  | ATL8C2<br>5338:2<br>131..1<br>22 | 0.70 | g40564<br>90 | 59 | 1562 | 3.0e-<br>106 | (AC005<br>896)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 167464 | ATU029<br>404 | ATL8S1<br>5679:5<br>35..18 | nap |  |  |  | ATL8S1<br>5679:4<br>53..18       | 0.69 | g11729<br>02 | 59 | 282  | 8.8e-<br>21  | REGA<br>PROTEI<br>N  |

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|        |               | 5                          |     |  |  |  |  | 5                               |      |  |  |                               |        |              |                              |  | [Rhodo<br>bacter<br>capsul<br>atus]   |
| 167465 | ATU029<br>405 | ATL8C3<br>3246:1<br>587..1 | nap |  |  |  |  | ATL8C3<br>3246:1<br>587..6<br>8 | 0.69 |  |  | g44163<br>01                  | 59     | 2347         | 4.2e-<br>181                 |  | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |
| 167466 | ATU029<br>406 | ATL8C1<br>793:27<br>79..1  | nap |  |  |  |  | ATL8C1<br>793:27<br>02..43<br>2 | 0.69 |  |  | g45443<br>72,<br>g44328<br>01 | 59, 40 | 1177,<br>545 | 2.8e-<br>150,<br>3.9e-<br>53 |  | (AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AC006<br>437)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167467 | ATU029<br>407 | ATL8C5<br>859:1.<br>.944   | nap |  |  |  |  | ATL8C5<br>859:59<br>..944       | 0.69 |  |  | g23927<br>63                  | 59     | 408          |                              |  | (AC002<br>534)<br>hypoth<br>etical<br>protei<br>n   |



|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |              |   |                              |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|---|------------------------------|
| 167471 | ATU029<br>411 | ATL8C1<br>6522:1<br>122..5<br>4 | nap |  |  |  |  | ATL8C1<br>6522:9<br>65..84      | 0.66 | g45032<br>77 | 59 | 82   | 0.0030       | dCMP<br>deamin<br>ase<br>[Homo<br>sapien<br>s]  | [Prunu<br>s<br>seroti<br>na] |
| 167472 | ATU029<br>412 | ATL8S1<br>8969:5<br>91..1       | nap |  |  |  |  | ATL8S1<br>8969:4<br>83..46      | 0.65 | g11686<br>65 | 59 | 599  | 7.3e-<br>55  | BIOTIN<br>SYNTHA<br>SE<br>(BIOTI<br>N<br>SYNTH<br>E<br>TASE)<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd]   |                              |
| 167473 | ATU029<br>413 | ATL8C2<br>6251:2<br>691..1      | nap |  |  |  |  | ATL8C2<br>6251:2<br>635..4<br>4 | 0.64 | g34618<br>40 | 59 | 2695 | 2.9e-<br>272 | (AC005<br>315)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na] |                              |
| 167474 | ATU029<br>414 | ATL8C2<br>0317:1<br>047..1      | nap |  |  |  |  | ATL8C2<br>0317:8<br>07..44<br>9 | 0.61 | g47579<br>48 | 59 | 808  | 9.1e-<br>81  | Cell<br>divisi<br>on<br>cycle<br>23,  |                              |

|        |               |                            |     |  |  |  |  |                                 |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|------|--------------|--|
| 167475 | ATU029<br>415 | ATL8C3<br>2834:2<br>799..1 | nap |  |  |  |  | ATL8C3<br>2834:2<br>354..8<br>5 | 0.61 | g44067<br>98 | 59 | 2947 | 2.4e-<br>272 | yeast<br>homolo<br>g;<br>CDC23<br>[Homo<br>sapien<br>s]                                |
| 167476 | ATU029<br>416 | ATL8C4<br>3579:1<br>..754  | nap |  |  |  |  | ATL8C4<br>3579:2<br>64..75<br>4 | 0.61 | g32528<br>16 | 59 | 1039 |              | (AC006<br>304)<br>putati<br>ve<br>helica<br>se<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 167477 | ATU029<br>417 | ATL8C8<br>350:22<br>6..996 | nap |  |  |  |  | ATL8C8<br>350:22<br>6..930      | 0.60 | g45860<br>69 | 59 | 889  | 7.5e-<br>88  | (AC004<br>705)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167478 | ATU029<br>418 | ATL8C2<br>2872:1<br>483..2 | nap |  |  |  |  | ATL8C2<br>2872:1<br>483..2      | 0.60 | g13635<br>28 | 59 | 1014 | 1.3e-<br>102 | (AC006<br>194)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |

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|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|-------------------------------|--------|--------------|-----------------------------|--|
| 167479 | ATU029<br>419 | 340                        | nap |  |  |  |  | 204                             | 0.60 | g45862<br>58                  | 59     | 589          | 7.9e-<br>65                 | maize<br>[Zea<br>mays]<br>(AL049<br>640)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 167480 | ATU029<br>420 | ATL8C4<br>6949:7<br>12..1  | nap |  |  |  |  | ATL8C4<br>6949:4<br>63..27<br>3 | 0.59 | g46894<br>52                  | 59     | 402          | 1.4e-<br>39                 | (AC006<br>267)<br>putati<br>ve<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                           |
| 167481 | ATU029<br>421 | ATL8C3<br>3294:1<br>..1465 | nap |  |  |  |  | ATL8C3<br>3294:5<br>2..101<br>3 | 0.57 | g33675<br>20,<br>g48357<br>95 | 59, 41 | 1012,<br>225 | 1.4e-<br>88,<br>5.4e-<br>20 | (AC004<br>392)<br>Simila<br>r to<br>protei<br>n<br>kinase<br>APK1A,<br>tyrosi<br>ne-<br>serine<br>-<br>threon<br>ine<br>kinase |





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| 167485 | ATU029<br>425 | 96..1                     | ATL8S1<br>3857:5<br>0..498 | nap |  |  |  | 36..53                     | 0.55 | g30249<br>03 | 59 | 148 | 0.0001<br>7 | unknown<br>[Bordetella pertussis]<br>HYPOTHETICAL<br>15.4<br>KD<br>PROTEIN<br>CY71.2<br>4<br>[Mycobacterium tuberculosis] |
| 167486 | ATU029<br>426 | ATL8C1<br>5987:1<br>..937 | nap                        |     |  |  |  | ATL8C1<br>5987:1<br>7..835 | 0.54 | g45875<br>35 | 59 | 773 | 3.8e-<br>73 | (AC006577)<br>Belongs to the PF100657 Lipase /Acylhydrolase with GDSL-motif family . EST gb R29935 comes from             |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
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| 167487 | ATU029<br>427 | ATL8C2<br>49:182<br>5..1         | nap |  |  |  |  | ATL8C2<br>49:181<br>3..49        | 0.54 | 946462<br>32 | 59 | 2280 | 6.1e-<br>235 | this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              | (AC007<br>266)<br>putati<br>ve<br>ligand<br>-gated<br>ion<br>channe<br>l<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167488 | ATU029<br>428 | ATL8C1<br>6583:1<br>195..1       | nap |  |  |  |  | ATL8C1<br>6583:7<br>19..21       | 0.53 | 933954<br>40 | 59 | 386  | 5.2e-<br>30  | (AC004<br>683)<br>hypothe<br>tical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
| 167489 | ATU029<br>429 | ATL8C4<br>7445:3<br>23..28<br>33 | nap |  |  |  |  | ATL8C4<br>7445:3<br>23..28<br>02 | 0.53 | 936953<br>82 | 59 | 775  | 3.1e-<br>78  | (AF096<br>370)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis  |

|        |               |                                 |     |  |  |  |  |  |      |              |    |      |              |  |
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| 167490 | ATU029<br>430 | ATL8C1<br>0462:1<br>898..1      | nap |  |  |  |  |  | 0.52 | g21905<br>49 | 59 | 533  | 1.1e-<br>52  | thalia<br>na<br>retrot<br>ranspo<br>son<br>Tall-1<br>(GB:L4<br>7193)<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 167491 | ATU029<br>431 | ATL8S1<br>6159:6<br>67..32<br>3 | nap |  |  |  |  |  | 0.52 | g21209<br>76 | 59 | 434  | 6.1e-<br>41  | acetyl<br>transf<br>erase<br>homolo<br>g -<br>Bordet<br>ella<br>pertus<br>sis<br>[Borde<br>tella<br>pertus<br>sis] |
| 167492 | ATU029<br>432 | ATL8C2<br>0271:1<br>..2723      | nap |  |  |  |  |  | 0.52 | g33193<br>60 | 59 | 2370 | 2.6e-<br>217 | (AF077<br>408)<br>contai<br>ns   |

|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |      |              |  |
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| 167493 | ATU029<br>433 | ATL8S2<br>038:38<br>5..1   | nap |  |  |  |  |  | ATL8S2<br>038:33<br>4..16       | 0.51 | g60618<br>8  | 59 | 132  | 7.5e-<br>09  | similarity<br>to<br>Vicia<br>faba<br>retrotransposon-<br>like<br>gene<br>(GB:AB007467)<br>[Arabidopsis thaliana] |
| 167494 | ATU029<br>434 | ATL8C2<br>0720:1<br>166..1 | nap |  |  |  |  |  | ATL8C2<br>0720:1<br>017..6<br>0 | 0.51 | g33193<br>71 | 59 | 1494 | 2.5e-<br>157 | (AF077409)<br>Similar to pectinesterase; T24M8.6<br>[Arabidopsis thaliana]                                       |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |      |              |  |
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| 167495 | ATU029<br>435 | ATL8C8<br>01:333<br>4..104<br>5 | nap |  |  |  |  | ATL8C8<br>01:328<br>9..125<br>4 | 0.51 | g48368<br>82 | 59 | 1567 | 1.2e-<br>107 | dopsis<br>thalia<br>na]<br>(AC007<br>260)<br>lcl pr<br>t_seq<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167496 | ATU029<br>436 | ATL8S1<br>3395:5<br>73..28      | nap |  |  |  |  | ATL8S1<br>3395:5<br>10..12<br>3 | 0.49 | g17890<br>36 | 59 | 323  | 7.7e-<br>18  | (AE000<br>352)<br>putati<br>ve<br>transp<br>ort<br>protei<br>n<br>[Esche<br>richia<br>coli]  |
| 167497 | ATU029<br>437 | ATL8C3<br>1048:1<br>256..1      | nap |  |  |  |  | ATL8C3<br>1048:5<br>64..43      | 0.49 | g41159<br>21 | 59 | 1695 | 6.6e-<br>168 | (AF118<br>222)<br>F3H7.4<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167498 | ATU029<br>438 | ATL8C2<br>3330:1<br>36..41      | nap |  |  |  |  | ATL8C2<br>3330:1<br>531..4      | 0.49 | g39351<br>64 | 59 | 2603 | 1.5e-<br>266 | (AC004<br>557)<br>F17L21   |

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| 167499 | ATU029<br>439 | ATL8C3<br>2953:5<br>87..1        | nap |  |  |  |  | 0.47 | g46782<br>32                  | 59     | 437          | 2.1e-<br>38                   | AC007<br>265)<br>hypothe-<br>tical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167500 | ATU029<br>440 | ATL8C3<br>3440:3<br>025..3<br>74 | nap |  |  |  |  | 0.47 | g47739<br>08,<br>g36953<br>99 | 59, 49 | 1631,<br>964 | 1.4e-<br>124,<br>1.1e-<br>126 | (AF147<br>259)<br>No<br>defini-<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF096<br>372)<br>contai-<br>ns<br>simila-<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retro-<br>transpo-<br>son |

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| 167501 | ATU029<br>441 | ATL8C1<br>1027:1<br>..1240 | nap |  |  |  |  | ATL8C1<br>1027:6<br>44..11<br>55 | 0.47 | g45389<br>66 | 59 | 1846 | 8.5e-<br>188 | Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na]                         |
| 167502 | ATU029<br>442 | ATL8C6<br>040:1.<br>.1103  | nap |  |  |  |  | ATL8C6<br>040:6.<br>.1007        | 0.46 | g31282<br>31 | 59 | 470  | 5.8e-<br>45  | (AL049<br>488)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |
| 167503 | ATU029<br>443 | ATL8C8<br>070:53<br>7..1   | nap |  |  |  |  | ATL8C8<br>070:35<br>5..8         | 0.46 | g38941<br>62 | 59 | 785  | 4.6e-<br>77  | (AC004<br>077)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167504 | ATU029<br>444 | ATL8C1<br>0765:2<br>706..3 | nap |  |  |  |  | ATL8C1<br>0765:2<br>621..5       | 0.46 | g43888<br>30 | 59 | 1969 | 3.0e-<br>196 | (AC005<br>312)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              | (AC006<br>528)<br>hypoth   |



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|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|--|------|-------------------------------|--------|------------|-----------------------------|--|
| 167505 | ATU029<br>445 | 43                         |     |  |  |  |  | 02                               |  | 0.45 | g48865<br>15                  | 59     | 426        | 5.0e-<br>41                 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
|        |               | ATL8S3<br>417:45<br>5..1   | nap |  |  |  |  | ATL8S3<br>417:30<br>7..155       |  |      |                               |        |            |                             | (AJ004<br>997)<br>expans<br>in18<br>[Lycop<br>ersico<br>n<br>escule<br>ntum]   |
| 167506 | ATU029<br>446 | ATL8C2<br>2481:1<br>..1584 | nap |  |  |  |  | ATL8C2<br>2481:5<br>68..14<br>35 |  | 0.44 | g38057<br>63                  | 59     | 444        | 4.4e-<br>49                 | (AC005<br>693)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                               |
| 167507 | ATU029<br>447 | ATL8C9<br>506:1.<br>..1817 | nap |  |  |  |  | ATL8C9<br>506:49<br>..1760       |  | 0.42 | g33778<br>16,<br>g44173<br>05 | 59, 38 | 763,<br>87 | 2.1e-<br>83,<br>3.3e-<br>06 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son |



|        |               |                            |     |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
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| 167510 | ATU029<br>450 | ATL8C2<br>8344:4<br>86..90 | nap |  |  |  |  |  |  |  |  | g17698<br>99 | 59 | 307 | 1.5e-<br>25 | (Y0801<br>0)<br>lectin<br>recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>nal]         | pol<br>protei<br>n<br>[Oryza<br>sativa<br>subsp.<br>indica<br>] |
| 167511 | ATU029<br>451 | ATL8S2<br>8629:6<br>09..1  | nap |  |  |  |  |  |  |  |  | g44163<br>03 | 59 | 678 | 6.7e-<br>62 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]  |   |
| 167512 | ATU029<br>452 | ATL8S2<br>0677:1<br>..256  | nap |  |  |  |  |  |  |  |  | g11757<br>22 | 59 | 102 | 1.2e-<br>05 | HYPOTH<br>ETICAL<br>14 KD<br>PROTEI<br>N IN<br>TRNI<br>INTRON<br>(ORF<br>134)<br>[Zea<br>mays] |   |
| 167513 | ATU029<br>453 | ATL8S1<br>0885:5<br>61..1  | nap |  |  |  |  |  |  |  |  | g29829<br>98 | 59 | 150 | 4.2e-<br>15 | (AF000<br>683)<br>histid<br>ine  |   |

|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|---|
| 167514 | ATU029<br>454 | ATL8C3<br>2260:4<br>57..1         | nap |  |  |  |  |  |  |  |  | g47739<br>12 | 59 | 590 | 3.0e-<br>33 | (AF147<br>259)<br>No. defini<br>tion line<br>found [Arabi<br>dopsis thalia<br>nal]         | kinase<br>sensor<br>proteins<br>[Aquifex<br>aeolicus]           |
| 167515 | ATU029<br>455 | ATL8C4<br>4606:4<br>042..3<br>447 | nap |  |  |  |  |  |  |  |  | g38602<br>53 | 59 | 352 | 3.5e-<br>30 | (AC005<br>824)<br>hypothetical<br>protein [Arabi<br>dopsis thalia<br>nal]                  | kinase<br>sensor<br>proteins<br>[Arabi<br>dopsis thalia<br>nal] |
| 167516 | ATU029<br>456 | ATL8C2<br>5443:7<br>11..11<br>61  | nap |  |  |  |  |  |  |  |  | g42493<br>80 | 59 | 179 | 8.9e-<br>15 | (AC005<br>966)<br>ESTs gb Z37<br>637,<br>gb AA0<br>42498<br>and<br>gb AA0<br>42269<br>come | kinase<br>sensor<br>proteins<br>[Arabi<br>dopsis thalia<br>nal] |

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| 167517 | ATU029<br>457 | ATL8C3<br>1951:1<br>..1049       | nap |  |  |  |  |  |  |  | g26424<br>44 | 59 | 1400 | 5.4e-<br>132 | (AC002<br>391)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167518 | ATU029<br>458 | ATL8C2<br>8565:1<br>585..6<br>38 | nap |  |  |  |  |  |  |  | g45860<br>36 | 59 | 1459 | 2.5e-<br>146 | (AC007<br>109)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]        |
| 167519 | ATU029<br>459 | ATL8C1<br>4469:5<br>70..1        | nap |  |  |  |  |  |  |  | g31281<br>74 | 59 | 436  | 4.6e-<br>45  | (AC004<br>521)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]        |
| 167520 | ATU029<br>460 | ATL8C4<br>2827:1                 | nap |  |  |  |  |  |  |  | g15272<br>17 | 59 | 272  | 3.6e-<br>26  | (U6821<br>7)   |

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| 167521 | ATU029<br>461 | ATL8C8<br>679:1.<br>.3623        | nap |  |  |  |  |  |  |  |  | g42635<br>44 | 59 | 2709 | 4.4e-<br>259 | ferritin<br>[Brassic<br>napus]<br>(AC006<br>250)<br>putative<br>Athila<br>retroele<br>ment<br>ORF1<br>protein<br>[Arabid<br>opsis<br>thaliana] |
| 167522 | ATU029<br>462 | ATL8S2<br>0249:1<br>..512        | nap |  |  |  |  |  |  |  |  | g27726<br>19 | 59 | 363  | 7.1e-<br>35  | (U9335<br>5)<br>hypothet<br>ical<br>32.1<br>kDa<br>protein<br>[Erwinia<br>herbicola]   |
| 167523 | ATU029<br>463 | ATL8C1<br>7063:2<br>086..9<br>14 | nap |  |  |  |  |  |  |  |  | g32362<br>53 | 59 | 914  | 5.0e-<br>94  | (AC004<br>684)<br>receptor-<br>like<br>protein<br>kinase<br>[Arabid  |







|        |               |                           |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|
| 167529 | ATU029<br>469 | ATL8C2<br>5625:5<br>46..1 | nap |  |  |  |  |  |  |  |  |  | g38602<br>46 | 59 | 600 | 3.0e-<br>59 | etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 167530 | ATU029<br>470 | ATL8C2<br>8787:1<br>..964 | nap |  |  |  |  |  |  |  |  |  | g28276<br>52 | 59 | 329 | 8.6e-<br>33 | (AL021<br>637)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167531 | ATU029<br>471 | ATL8C3<br>0459:1<br>..184 | nap |  |  |  |  |  |  |  |  |  | g28276<br>39 | 59 | 96  | 1.4e-<br>07 | (AL021<br>636)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |



|        |               |                                  |     |  |  |  |  |  |              |    |     |             |    |  |
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|        | 475           | 1814:5<br>70..1                  |     |  |  |  |  |  | 95           |    |     |             | 44 | 304)<br>hypoth<br>etical<br>protei<br>n [Arabi<br>dopsis<br>thalia<br>na]  |
| 167536 | ATU029<br>476 | ATL8C1<br>7904:2<br>618..3<br>48 | nap |  |  |  |  |  | g28274<br>4  | 59 | 91  |             |    | gene<br>coxi<br>intron<br>1<br>protei<br>n -<br>liverw<br>ort<br>(March<br>antia<br>polymo<br>rpha)<br>mitoch<br>ondrio<br>n<br>[March<br>antia<br>polymo<br>rpha] |
| 167537 | ATU029<br>477 | ATL8S2<br>1014:1<br>..300        | nap |  |  |  |  |  | g26552<br>67 | 59 | 267 | 1.0e-<br>20 |    | (AF031<br>161)<br>styren<br>e<br>oxide<br>isomer<br>ase<br>[Pseud<br>omonas<br>sp.<br>VLB120<br>]  |

|        |               |                                   |     |  |  |  |  |  |  |              |    |     |  |
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| 167538 | ATU029<br>478 | ATL8C4<br>3964:2<br>663..2<br>550 | nap |  |  |  |  |  |  | g37907<br>43 | 59 | 118 | (AF099<br>919)<br>contai<br>ns<br>simila<br>rity<br>to<br>cytoch<br>rome C<br>oxidas<br>e<br>assemb<br>ly<br>protei<br>n<br>COX17<br>homolo<br>gues<br>[Caeno<br>rhabdi<br>tis<br>elegan<br>s] |
| 167539 | ATU029<br>479 | ATL8S1<br>7311:1<br>..541         | nap |  |  |  |  |  |  | g21499<br>01 | 59 | 370 | (U9470<br>7)<br>unknow<br>n<br>[Enter<br>ococcu<br>s<br>faecal<br>is]  |
| 167540 | ATU029<br>480 | ATL8C1<br>005:34<br>2..1          | nap |  |  |  |  |  |  | g45126<br>32 | 59 | 123 | (AC004<br>793)<br>Contai<br>ns<br>simila<br>rity<br>to<br>[Arabi   |







|        |               |                            |     |  |  |  |  |  |  |  |  |              |    |      |              |  |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|------|--------------|--|--|
| 167549 | ATU029<br>489 | ATL8S2<br>4276:6<br>01..1  | nap |  |  |  |  |  |  |  |  | g11462<br>20 | 59 | 287  | 1.6e-<br>26  | (L4764<br>8)<br>NAD+<br>depend<br>ent<br>glycer<br>ol-3-<br>phosph<br>ate<br>dehydr<br>ogenase<br>[Bacillus<br>subtilis] | proteol<br>n, 5',<br>partial<br>[Arabis<br>dopsis<br>thaliana] |
| 167550 | ATU029<br>490 | ATL8C3<br>6473:9<br>41..1  | nap |  |  |  |  |  |  |  |  | g30333<br>75 | 59 | 949  | 8.2e-<br>85  | (AC004<br>238)<br>putative<br>berberine<br>bridge<br>enzyme<br>[Arabis<br>dopsis<br>thaliana]                            |  |
| 167551 | ATU029<br>491 | ATL8C1<br>4718:1<br>671..1 | nap |  |  |  |  |  |  |  |  | g33193<br>45 | 59 | 1394 | 1.0e-<br>153 | (AF077<br>407)<br>contains   |  |



|        |               |                                  |     |  |  |  |  |  |  |  |              |      |              |   |   |
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| 167552 | ATU029<br>492 | ATL8C4<br>3275:2<br>598..8<br>11 | nap |  |  |  |  |  |  |  | 59           | 2457 | 2.2e-<br>255 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retroee<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | simila<br>rity<br>to<br>maize<br>transp<br>oson<br>MuDR<br>(GB:M7<br>6978)<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                  |     |  |  |  |  |  |  |  | g42635<br>43 |      |              |   |   |
| 167553 | ATU029<br>493 | ATL8C3<br>5047:2<br>567..1       | nap |  |  |  |  |  |  |  | 59           | 2070 | 1.2e-<br>144 | (AF058<br>825)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]                              |   |
|        |               |                                  |     |  |  |  |  |  |  |  | g30470<br>72 |      |              |   |   |
| 167554 | ATU029<br>494 | ATL8C1<br>3732:1                 | nap |  |  |  |  |  |  |  | 59           | 150  | 0.0047       | (D8685<br>3)  |   |
|        |               |                                  |     |  |  |  |  |  |  |  | g14862<br>63 |      |              |   |   |



|        |               |                            |     |  |  |  |  |  |  |              |    |     |             |   |   |
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| 167558 | ATU029<br>498 | ATL8C4<br>9690:1<br>..1182 | nap |  |  |  |  |  |  | 945196<br>71 | 59 | 154 | 2.5e-<br>09 | (AB017<br>693)<br>transf<br>actor<br>[Nicot<br>iana<br>tabacu<br>m]                                     | protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167559 | ATU029<br>499 | ATL8S9<br>846:1.<br>.523   | nap |  |  |  |  |  |  | 945863<br>41 | 59 | 354 | 1.4e-<br>27 | (AB016<br>787)<br>cytoch<br>rome o<br>ubiqui<br>nol<br>oxidas<br>e E<br>[Pseud<br>omonas<br>putida<br>] |   |
| 167560 | ATU029<br>500 | ATL8C4<br>1715:6<br>17..1  | nap |  |  |  |  |  |  | 947739<br>17 | 59 | 135 | 1.5e-<br>08 | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]            |   |
| 167561 | ATU029<br>501 | ATL8C3<br>6009:1<br>494..2 | nap |  |  |  |  |  |  | 945077<br>11 | 59 | 95  | 5.0e-<br>06 | tetrat<br>ricope<br>ptide   |   |



|        |               |                                   |     |  |  |  |  |  |                                  |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|----------------------------------|--------------|----|-----|-------------|---|
| 167565 | ATU029<br>505 | ATL8C2<br>2440:3<br>285..3<br>766 | nap |  |  |  |  |  |                                  | g84961       | 59 | 150 | 1.3e-<br>05 | [Arabi<br>dopsis<br>thalia<br>na]<br>gag<br>protei<br>n -<br>fruit<br>fly<br>(Droso<br>phila<br>melano<br>gaster<br>)<br>transp<br>oson<br>1731<br>[Droso<br>phila<br>melano<br>gaster<br>] |
| 167566 | ATU029<br>506 | ATL8C2<br>4218:2<br>668..3<br>140 | nap |  |  |  |  |  |                                  | g44553<br>64 | 59 | 496 | 1.4e-<br>42 | (AL035<br>524)<br>senesc<br>ence-<br>associ<br>ated<br>protei<br>n-like<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167567 | ATU029<br>507 | ATL8C3<br>4367:1<br>..1449        | nap |  |  |  |  |  | ATL8C3<br>4367:5<br>38..14<br>19 | 0.99         | 58 | 435 | 6.3e-<br>41 | (U7099<br>9)<br>CCS1<br>[Chlam<br>ydomon<br>as  |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |   |
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| 167572 | ATU029<br>512 | ATL8S1<br>0897:1<br>..473        | nap |  |  |  |  | ATL8S1<br>0897:3<br>..464        | 0.95 | g17232<br>94 | 58 | 252 | 7.6e-<br>23 | DNA<br>LIGASE<br>(POLYD<br>EOXYRI<br>BONUCL<br>EOTIDE<br>SYNTHA<br>SE<br>(ATP) )<br>[Haemo<br>philus<br>influe<br>nzae] | protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167573 | ATU029<br>513 | ATL8C1<br>5858:1<br>..1185       | nap |  |  |  |  | ATL8C1<br>5858:2<br>63..11<br>85 | 0.95 | g47880<br>9  | 58 | 758 | 1.8e-<br>75 | protei<br>n<br>kinase<br>6 (EC<br>2.7.1.<br>-) -<br>soybea<br>n<br>[Glyci<br>ne<br>max]                                 | protei<br>n<br>kinase<br>6 (EC<br>2.7.1.<br>-) -<br>soybea<br>n<br>[Glyci<br>ne<br>max] |
| 167574 | ATU029<br>514 | ATL8C1<br>9268:4<br>64..14<br>89 | nap |  |  |  |  | ATL8C1<br>9268:4<br>64..11<br>91 | 0.95 | g18413<br>99 | 58 | 744 | 1.7e-<br>72 | (Z3466<br>1)<br>AtTFII<br>B2<br>[Arabi<br>dopsis<br>thalia<br>na]   | (Z3466<br>1)<br>AtTFII<br>B2<br>[Arabi<br>dopsis<br>thalia<br>na]                       |
| 167575 | ATU029<br>515 | ATL8C2<br>6243:1                 | nap |  |  |  |  | ATL8C2<br>6243:1                 | 0.93 | g44907<br>04 | 58 | 844 | 2.6e-<br>65 | (AL035<br>680)  | (AL035<br>680)  |

|        |               |                            |     |  |  |  |                                 |      |              |    |      |              |   |
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| 167576 | ATU029<br>516 | 809..1                     | nap |  |  |  | 575..1<br>1                     | 0.92 | g33288<br>04 | 58 | 120  | 0.97         | (AE001<br>311)<br>GTP<br>Bindin<br>g<br>Protei<br>n<br>[Chlam<br>ydia<br>tracho<br>matis]                 |
| 167577 | ATU029<br>517 | ATL8C1<br>3794:1<br>791..1 | nap |  |  |  | ATL8C6<br>763:10<br>78..24<br>2 | 0.90 | g47339<br>81 | 58 | 1146 | 4.4e-<br>111 | (AC007<br>268)<br>putati<br>ve<br>serine<br>carbox<br>ypepti<br>dase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167578 | ATU029<br>518 | ATL8C4<br>1041:1<br>..901  | nap |  |  |  | ATL8C4<br>1041:7<br>06..90<br>1 | 0.89 | g18711<br>79 | 58 | 158  | 2.6e-<br>14  | (U9043<br>9)<br>FMRFam<br>ide<br>precu<br>sor<br>isolog<br>[Arabi<br>dopsis                               |



|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |   |
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| 167579 | ATU029<br>519 | ATL8C2<br>5780:4<br>784..2<br>641 | nap |  |  |  | ATL8C2<br>5780:4<br>657..2<br>641 | 0.88 | g34618<br>41 | 58 | 1220 | 2.1e-<br>97  | thalia<br>na]<br>(AC005<br>315)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167580 | ATU029<br>520 | ATL8C4<br>5992:2<br>911..8<br>8   | nap |  |  |  | ATL8C4<br>5992:8<br>83..21<br>6   | 0.88 | g45843<br>54 | 58 | 714  | 4.4e-<br>62  | (AC006<br>420)<br>putati<br>ve<br>PttA-<br>like<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 167581 | ATU029<br>521 | ATL8C4<br>7069:2<br>288..1        | nap |  |  |  | ATL8C4<br>7069:2<br>223..3<br>14  | 0.87 | g43357<br>20 | 58 | 2072 | 1.1e-<br>225 | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e Tal-<br>1<br>[Arabi                                    |

|        |               |                                   |     |  |  |  |  |  |                                   |      |              |    |      |              |   |
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| 167582 | ATU029<br>522 | ATL8C3<br>4258:2<br>958..9<br>24  | nap |  |  |  |  |  | ATL8C3<br>4258:2<br>922..9<br>24  | 0.86 | g39534<br>79 | 58 | 3112 | 8.5e-<br>291 | (AC002<br>328)<br>F2202.<br>24<br>[Arabi<br>dopsis<br>thalia<br>na]                                   |
| 167583 | ATU029<br>523 | ATL8S2<br>856:1.<br>.743          | nap |  |  |  |  |  | ATL8S2<br>856:28<br>2..733        | 0.85 | g23427<br>28 | 58 | 660  | 9.6e-<br>67  | (AC002<br>341)<br>Cystei<br>ne<br>protei<br>nase<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 167584 | ATU029<br>524 | ATL8C1<br>3452:5<br>76..1         | nap |  |  |  |  |  | ATL8C1<br>3452:4<br>83..22<br>4   | 0.84 | g44671<br>45 | 58 | 53   | 0.0001<br>4  | (AL035<br>540)<br>farnes<br>ylated<br>protei<br>n<br>(ATFP6<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167585 | ATU029<br>525 | ATL8C3<br>6029:1<br>783..2<br>568 | nap |  |  |  |  |  | ATL8C3<br>6029:1<br>783..2<br>172 | 0.84 | g72977<br>4  | 58 | 429  | 5.9e-<br>18  | HEAT<br>SHOCK<br>FACTOR<br>PROTEI<br>N<br>HSF30   |

|        |               |                           |     |  |  |  |  |  |  |                                 |      |              |    |     |             |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|---|
| 167586 | ATU029<br>526 | ATL8C5<br>014:1.<br>.1852 | nap |  |  |  |  |  |  | ATL8C5<br>014:26<br>9..177<br>7 | 0.82 | g34508<br>42 | 58 | 766 | 4.3e-<br>73 | (HEAT<br>SHOCK<br>TRANSC<br>RIPTIO<br>N<br>FACTOR<br>30)<br>(HSTF<br>30)<br>(HEAT<br>STRESS<br>TRANSC<br>RIPTIO<br>N<br>FACTOR<br>)<br>[Lycop<br>ersico<br>n<br>peruvi<br>anum] |
| 167587 | ATU029<br>527 | ATL8C1<br>8610:6<br>98..1 | nap |  |  |  |  |  |  | ATL8C1<br>8610:6<br>98..48      | 0.82 | g42204<br>70 | 58 | 613 | 5.1e-<br>61 | (AF080<br>436)<br>mitoge<br>n<br>activa<br>ted<br>protei<br>n<br>kinase<br>kinase<br>[Oryza<br>sativa<br>]  |
|        |               |                           |     |  |  |  |  |  |  |                                 |      |              |    |     |             | (AC006<br>069)<br>hypoth<br>etical<br>protei<br>n   |

|        |               |                            |     |  |  |  |  |                            |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------|------|--------------|----|-----|-------------|--|
| 167588 | ATU029<br>528 | ATL8S7<br>922:54<br>4..1   | nap |  |  |  |  | ATL8S7<br>922:47<br>4..57  | 0.80 | g14016<br>4  | 58 | 467 | 3.1e-<br>37 | [Arabi<br>dopsis<br>thalia<br>na]  |
| 167589 | ATU029<br>529 | ATL8S2<br>089:19<br>8..592 | nap |  |  |  |  | ATL8S2<br>089:19<br>8..504 | 0.80 | g23150<br>9  | 58 | 192 | 6.0e-<br>14 | HYPOTH<br>ETICAL<br>34.9<br>KD<br>PROTEI<br>N IN<br>FRUR-<br>FTSL<br>INTERG<br>ENIC<br>REGION<br>(ORFB)<br>[Esche<br>richia<br>coli] |
| 167590 | ATU029<br>530 | ATL8C4<br>955:49<br>3..1   | nap |  |  |  |  | ATL8C4<br>955:49<br>0..64  | 0.79 | g44690<br>27 | 58 | 386 | 6.9e-<br>36 | ACTIN<br>DEPOLY<br>MERIZI<br>NG<br>FACTOR<br>(ADF)<br>[Liliu<br>m<br>longif<br>lorum]  |
|        |               |                            |     |  |  |  |  |                            |      |              |    |     |             | (AL035<br>602)<br>foreve<br>r<br>young<br>gene<br>(FEY)<br>[Arabi<br>dopsis<br>thalia<br>na]   |



|        |               |                                 |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 167595 | ATU029<br>535 | ATL8C1<br>1063:1<br>..1574      | nap |  |  |  | ATL8C1<br>1063:1<br>11..12<br>09 | 0.72 | g80629<br>9  | 58 | 1588 | 3.1e-<br>161 | na]<br>(M2542<br>7)<br>unknown<br>n<br>protei<br>n<br>[Zea<br>mays]  |
| 167596 | ATU029<br>536 | ATL8C4<br>5988:5<br>60..1       | nap |  |  |  | ATL8C4<br>5988:5<br>60..12       | 0.72 | g42204<br>77 | 58 | 321  | 6.8e-<br>27  | (AC006<br>069)<br>unknown<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167597 | ATU029<br>537 | ATL8C4<br>8437:6<br>7..410<br>8 | nap |  |  |  | ATL8C4<br>8437:6<br>7..410<br>8  | 0.71 | g11725<br>46 | 58 | 562  | 3.0e-<br>46  | POLYRI<br>BONUCL<br>EOTIDE<br>NUCLEO<br>TIDYLT<br>RANSFE<br>RASE<br>(POLYN<br>UCLEOT<br>IDE<br>PHOSPH<br>ORYLAS<br>E)<br>(PNPAS<br>E)<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd] |
| 167598 | ATU029        | ATL8C1                          | nap |  |  |  | ATL8C1                           | 0.71 | g47552       | 58 | 489  | 9.5e-        | (AC007<br>Rd]  |

|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 167599 | 538           | 5980:9<br>3..674                |     |  |  |  |  | 5980:9<br>3..611                | 03   |              |    |     | 44          | 018)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167599 | ATU029<br>539 | ATL8S1<br>2555:9<br>6..524      | nap |  |  |  |  | ATL8S1<br>2555:1<br>11..44<br>2 | 0.70 | g31232<br>68 | 58 | 444 | 5.3e-<br>42 | 30S<br>RIBOSO<br>MAL<br>PROTEI<br>N S2<br>(BS1)<br>(VEGET<br>ATIVE<br>PROTEI<br>N 209)<br>(VEG20<br>9)<br>[Bacil<br>lus<br>subtil<br>is] |
| 167600 | ATU029<br>540 | ATL8C1<br>8364:1<br>..932       | nap |  |  |  |  | ATL8C1<br>8364:2<br>15..92<br>8 | 0.70 | g48039<br>31 | 58 | 658 | 2.4e-<br>53 | (AC006<br>264)<br>unknow<br>n protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167601 | ATU029<br>541 | ATL8C4<br>8219:8<br>8..195<br>8 | nap |  |  |  |  | ATL8C4<br>8219:8<br>8..195<br>8 | 0.70 | g11756<br>08 | 58 | 99  | 9.4e-<br>07 | TETRAA<br>CYLDIS<br>ACCHAR<br>IDE<br>4'-   |

|        |               |                                 |     |  |  |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 167602 | ATU029<br>542 | ATL8S1<br>3860:5<br>49..20      | nap |  |  |  |  |  |  | ATL8S1<br>3860:5<br>31..24      | 0.70 | g11104<br>41 | 58 | 210 | 6.4e-<br>20 | KINASE<br>(LIPID<br>A 4'-<br>KINASE<br>)<br>[Haemo<br>philus<br>influe<br>nzae<br>Rd]              |
| 167603 | ATU029<br>543 | ATL8S1<br>2989:1<br>..422       | nap |  |  |  |  |  |  | ATL8S1<br>2989:2<br>32..42<br>2 | 0.70 | g32041<br>32 | 58 | 98  | 0.87        | (M8062<br>8)<br>hypoth<br>etical<br>produc<br>t<br>[Strep<br>tomyce<br>s<br>griseu<br>s]           |
| 167604 | ATU029<br>544 | ATL8S2<br>7172:1<br>54..50<br>5 | nap |  |  |  |  |  |  | ATL8S2<br>7172:1<br>54..41<br>2 | 0.69 | g23221<br>7  | 58 | 131 | 1.6e-<br>11 | (AJ006<br>770)<br>extens<br>in<br>[Cicer<br>arieti<br>num]   |
|        |               |                                 |     |  |  |  |  |  |  |                                 |      |              |    |     |             | GLUTAT<br>HIONE<br>S-<br>TRANSF<br>ERASE<br>GST-<br>6.0<br>(GST<br>B1-1)<br>[Prote<br>us<br>mirabi |





|        |               |                                   |     |  |  |  |                                   |      |                               |        |              |                              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 167609 | ATU029<br>549 | ATL8C4<br>9452:2<br>298..3<br>877 | nap |  |  |  | ATL8C4<br>9452:2<br>298..3<br>828 | 0.65 | g43098<br>68,<br>g47739<br>10 | 58, 36 | 1348,<br>192 | 8.8e-<br>131,<br>5.7e-<br>14 | na]<br>(AC006<br>527)<br>putati<br>ve<br>retrot<br>ranspo<br>son-<br>like<br>orf<br>[Arabi<br>dopsis<br>thalia<br>na];<br>(AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167610 | ATU029<br>550 | ATL8C8<br>922:30<br>25..18<br>4   | nap |  |  |  | ATL8C8<br>922:14<br>72..18<br>4   | 0.65 | g30045<br>50                  | 58     | 395          | 3.4e-<br>26                  | (AC003<br>673)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167611 | ATU029<br>551 | ATL8C3<br>6137:1<br>500..1        | nap |  |  |  | ATL8C3<br>6137:1<br>500..9<br>1   | 0.64 | g44552<br>92                  | 58     | 1539         | 2.4e-<br>124                 | (AL035<br>528)<br>putati<br>ve<br>protei   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 167612 | ATU029<br>552 | ATL8C4<br>6970:1<br>898..4<br>22  | nap |  |  |  |  | ATL8C4<br>6970:8<br>85..76<br>0   | 0.64 | g42638<br>19 | 58 | 361  | 1.4e-<br>20  | n<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>067)<br>putati<br>ve<br>serpin<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167613 | ATU029<br>553 | ATL8C3<br>0180:9<br>86..39        | nap |  |  |  |  | ATL8C3<br>0180:8<br>43..39        | 0.63 | g33416<br>86 | 58 | 862  | 1.4e-<br>45  | (AC003<br>672)<br>putati<br>ve<br>glycos<br>yl<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 167614 | ATU029<br>554 | ATL8C2<br>2448:4<br>046..2<br>428 | nap |  |  |  |  | ATL8C2<br>2448:3<br>807..2<br>592 | 0.62 | g33778<br>16 | 58 | 1860 | 8.5e-<br>140 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot                                    |

|        |               |                            |     |  |  |  |  |  |  |                                 |      |              |    |      |             |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--|---------------------------------|------|--------------|----|------|-------------|--|
| 167615 | ATU029<br>555 | ATL8C2<br>0795:1<br>..1137 | nap |  |  |  |  |  |  | ATL8C2<br>0795:1<br>43..90<br>5 | 0.61 | g31579<br>50 | 58 | 1083 | 7.4e-<br>86 | (AC002<br>131)<br>Contai<br>ns<br>simila<br>rity<br>to<br>hypoth<br>etical<br>protei<br>n<br>C18b11<br>.05<br>gb Z50<br>728<br>from<br>S.<br>pombe.<br>EST<br>gb H76<br>601<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167616 | ATU029<br>556 | ATL8C2<br>9916:5           | nap |  |  |  |  |  |  | ATL8C2<br>9916:5                | 0.59 | g47739<br>17 | 58 | 709  | 1.0e-<br>57 | (AF147<br>259)   |

|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |   |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|--|
| 167617 | ATU029<br>557 | ATL8C3<br>3455:1<br>806..1 | nap |  |  |  | 89..26                           | 0.59 | g12795<br>96 | 58 | 111  | 1.8e-<br>10  | (Z7175<br>1)<br>pectin<br>methyl<br>esterase<br>[Nicotiana<br>plumbaginifolia]        | No<br>definition<br>line<br>found<br>[Arabidopsis<br>thaliana] |
| 167618 | ATU029<br>558 | ATL8S2<br>1239:4<br>7..492 | nap |  |  |  | ATL8S2<br>1239:4<br>7..475       | 0.58 | g21456<br>45 | 58 | 222  | 1.3e-<br>15  | B1177<br>F3_136<br>proteins -<br>Mycobacterium<br>leprae<br>[Mycobacterium<br>leprae] |  |
| 167619 | ATU029<br>559 | ATL8C2<br>6517:1<br>..2680 | nap |  |  |  | ATL8C2<br>6517:6<br>97..25<br>95 | 0.58 | g31932<br>91 | 58 | 1990 | 2.0e-<br>207 | (AF069<br>298)<br>Similator<br>to<br>DNA<br>mismatch                                  |  |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 167620 | ATU029<br>560 | ATL8C3<br>0427:1<br>..1496 | nap |  |  |  |  | ATL8C3<br>0427:1<br>25..12<br>90 | 0.56 | g47739<br>08 | 58 | 2224 | 2.8e-<br>193 | repair<br>protei<br>n;<br>T14P8.<br>6<br>[Arabi<br>dopsis<br>thalia<br>na]                   |
| 167621 | ATU029<br>561 | ATL8C9<br>495:14<br>04..1  | nap |  |  |  |  | ATL8C9<br>495:14<br>04..56       | 0.56 | g42204<br>56 | 58 | 569  | 1.4e-<br>42  | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167622 | ATU029<br>562 | ATL8S2<br>2070:6<br>13..32 | nap |  |  |  |  | ATL8S2<br>2070:5<br>46..32       | 0.55 | g11683<br>7  | 58 | 264  | 6.6e-<br>15  | (AC006<br>216)<br>Strong<br>simila<br>rity<br>to<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 167623 | ATU029<br>563 | ATL8C1<br>5695:1           | nap |  |  |  |  | ATL8C1<br>5695:1                 | 0.55 | g45444<br>55 | 58 | 156  | 1.7e-<br>10  | COBF<br>PROTEI<br>N<br>[Pseud<br>omonas<br>denitr<br>ifican<br>s]                            |
|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              | (AC006<br>592)   |

|        |               |                            |     |  |  |  |  |                                 |      |                              |        |             |                     |  |  |  |  |         |  |
|--------|---------------|----------------------------|-----|--|--|--|--|---------------------------------|------|------------------------------|--------|-------------|---------------------|--|--|--|--|---------|--|
|        |               | 789..5<br>18               |     |  |  |  |  | 719..5<br>18                    |      |                              |        |             |                     |  |  |  |  | 1.0e-35 | mannose phosphate isomerase [Homo sapiens] |
| 167624 | ATU029<br>564 | ATL8C9<br>373:1.<br>.1598  | nap |  |  |  |  | ATL8C9<br>373:41<br>2..155<br>1 | 0.54 | g45052<br>35                 | 58     | 362         |                     |  |  |  |  |         |  |
| 167625 | ATU029<br>565 | ATL8C2<br>3552:1<br>064..1 | nap |  |  |  |  | ATL8C2<br>3552:2<br>38..19      | 0.53 | g54964<br>1,<br>g23846<br>93 | 58, 37 | 152,<br>110 | 0.00074,<br>0.00059 |  |  |  |  |         |  |





|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 167630 | ATU029<br>570 | ATL8C4<br>2272:1<br>..3731        | nap |  |  |  | ATL8C4<br>2272:1<br>034..3<br>483 | 0.47 | g42635<br>44 | 58 | 2416 | 3.4e-<br>240 | pertus<br>sis]<br>(AC006<br>250)<br>putati<br>ve<br>Athila<br>retroe<br>lement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167631 | ATU029<br>571 | ATL8S1<br>8718:1<br>..701         | nap |  |  |  | ATL8S1<br>8718:9<br>2..653        | 0.47 | g16539<br>48 | 58 | 353  | 8.1e-<br>28  | (D9091<br>7)<br>hypoth<br>etical<br>protei<br>n<br>[Synec<br>hocyst<br>is<br>sp.]  |
| 167632 | ATU029<br>572 | ATL8C1<br>3567:5<br>382..7<br>903 | nap |  |  |  | ATL8C1<br>3567:7<br>216..6<br>847 | 0.47 | g47739<br>10 | 58 | 88   | 0.015        | (AF147<br>259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167633 | ATU029<br>573 | ATL8C2<br>0711:5<br>440..1        | nap |  |  |  | ATL8C2<br>0711:2<br>819..1        | 0.47 | g48369<br>30 | 58 | 3012 | 8.5e-<br>291 | (AC006<br>085)<br>Hypoth   |



|        |               |                            |     |  |  |  |  |  |                                 |      |              |    |     |             |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|---------------------------------|------|--------------|----|-----|-------------|--|
| 167638 | ATU029<br>578 | ATL8C4<br>5702:1<br>..1260 | nap |  |  |  |  |  | ATL8C4<br>5702:9<br>5..980      | 0.41 | g34618<br>27 | 58 | 250 | 1.7e-<br>24 | KINASE<br>)<br>[Synec<br>hocyst<br>is<br>sp.]<br>(AC004<br>138)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167639 | ATU029<br>579 | ATL8C4<br>5241:7<br>6..860 | nap |  |  |  |  |  | ATL8C4<br>5241:3<br>91..75<br>1 | 0.41 | g14028<br>83 | 58 | 307 | 2.5e-<br>26 | (X9813<br>0)<br>unknow<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167640 | ATU029<br>580 | ATL8C6<br>655:1.<br>.674   | nap |  |  |  |  |  |                                 |      | g35229<br>49 | 58 | 775 | 2.6e-<br>74 | (AC004<br>411)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167641 | ATU029<br>581 | ATL8S1<br>7768:4           | nap |  |  |  |  |  |                                 |      | g38606<br>32 | 58 | 499 | 3.3e-<br>49 | (AJ235<br>270)   |

|        |               |                           |     |  |  |  |  |  |  |                            |              |    |      |              |   |
|--------|---------------|---------------------------|-----|--|--|--|--|--|--|----------------------------|--------------|----|------|--------------|---|
| 167642 | ATU029<br>582 | 86..1                     | nap |  |  |  |  |  |  | 1.00                       | g21601<br>41 | 57 | 1126 | 5.4e-<br>118 | 2-<br>DEHYDR<br>O-3-<br>DEOXYP<br>HOSPHO<br>OCTONA<br>TE<br>ALDOLA<br>SE<br>(kdsA)<br>[Ricke<br>ttsia<br>prowaz<br>ekil]                            |
| 167643 | ATU029<br>583 | ATL8C3<br>086:11<br>86..1 | nap |  |  |  |  |  |  | ATL8C3<br>086:10<br>28..22 |              |    |      |              | (AC000<br>375)<br>Strong<br>simila<br>rity<br>to<br>Tritic<br>um<br>aestiv<br>um<br>serpin<br>(gb Z4<br>9890).<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                           |     |  |  |  |  |  |  | ATL8S2<br>5210:4<br>62..40 | g24974<br>14 | 57 | 335  | 2.1e-<br>26  | INTEGR<br>ASE/RE<br>COMBIN<br>ASE<br>XERD<br>[Salmo<br>nella<br>typhim<br>urium]  |

|        |               |                            |     |  |  |  |  |  |  |              |    |     |             |   |
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| 167644 | ATU029<br>584 | ATL8S2<br>2063:1<br>..484  | nap |  |  |  |  |  |  | g10734<br>48 | 58 | 140 | 9.7e-<br>11 | hypothetical protein f285 - Escherichia coli [Escherichia coli] |
| 167645 | ATU029<br>585 | ATL8C3<br>7989:8<br>73..1  | nap |  |  |  |  |  |  | g31641<br>32 | 58 | 888 | 5.7e-<br>72 | (D78601) cytochrome P450 monooxygenase [Arabis dopsis thaliana] |
| 167646 | ATU029<br>586 | ATL8S2<br>6588:5<br>17..30 | nap |  |  |  |  |  |  | g44903<br>01 | 58 | 533 |             | (AL035678) hypothetical protein [Arabis dopsis thaliana]        |
| 167647 | ATU029<br>587 | ATL8C4<br>3029:7<br>09..1  | nap |  |  |  |  |  |  | g45858<br>84 | 58 | 462 | 2.3e-<br>41 | (AC005850) Hypothetical protein [Arabis dopsis thaliana]        |



|        |               |                                   |     |  |  |  |                            |      |              |    |      |              |  |
|--------|---------------|-----------------------------------|-----|--|--|--|----------------------------|------|--------------|----|------|--------------|--|
| 167651 | ATU029<br>591 | ATL8C4<br>3886:1<br>..906         | nap |  |  |  | ATL8C4<br>3886:4<br>4..906 | 1.00 | g45875<br>27 | 57 | 1354 |              | na]<br>(AC007<br>060)<br>Strong<br>simila<br>rity<br>to<br>F19I3.<br>2 [ ]   |
| 167652 | ATU029<br>592 | ATL8C3<br>0793:6<br>077..4<br>174 | nap |  |  |  |                            |      | g42635<br>43 | 58 | 1353 | 7.4e-<br>134 | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167653 | ATU029<br>593 | ATL8C4<br>4305:1<br>077..5<br>78  | nap |  |  |  |                            |      | g47340<br>12 | 58 | 170  | 2.4e-<br>14  | (AC007<br>112)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                 |
| 167654 | ATU029<br>594 | ATL8C3<br>664:1.<br>.1996         | nap |  |  |  |                            |      | g44172<br>97 | 58 | 1429 | 8.3e-<br>157 | (AC007<br>019)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi  |







|        |               |                            |     |  |  |  |  |  |  |  |  |  |              |    |     |             |  |
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| 167662 | ATU029<br>602 | ATL8C7<br>892:1.<br>.1726  | nap |  |  |  |  |  |  |  |  |  | g45899<br>62 | 58 | 557 | 2.0e-<br>54 | (AC007<br>169)<br>putati<br>ve<br>fructo<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 167663 | ATU029<br>603 | ATL8C1<br>227:35<br>3..1   | nap |  |  |  |  |  |  |  |  |  | g21941<br>33 | 58 | 245 | 4.6e-<br>22 | (AC002<br>062)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167664 | ATU029<br>604 | ATL8C1<br>6915:1<br>237..1 | nap |  |  |  |  |  |  |  |  |  | g45859<br>17 | 58 | 180 | 1.5e-<br>12 | (AC006<br>298)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |
| 167665 | ATU029<br>605 | ATL8C3<br>8316:7<br>43..99 | nap |  |  |  |  |  |  |  |  |  | g26187<br>27 | 58 | 402 | 1.8e-<br>39 | (U4907<br>5)<br>IAA19  |

|        |               |   |                                    |     |  |  |  |  |  |  |  |              |    |      |             |   |
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| 167666 | ATU029<br>606 | 7 | ATL8C3<br>9170:3<br>053...1<br>944 | nap |  |  |  |  |  |  |  | g31579<br>50 | 58 | 1178 | 1.9e-<br>89 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC002<br>131)<br>Contai<br>ns<br>simila<br>rity<br>to<br>hypoth<br>etical<br>protei<br>n<br>C18b11<br>.05<br>gb Z50<br>728<br>from<br>S.<br>pombe.<br>EST<br>gb H76<br>601<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167667 | ATU029<br>607 |   | ATL8C4<br>4759:1<br>579...5<br>80  | nap |  |  |  |  |  |  |  | g42638<br>18 | 58 | 300  | 5.2e-<br>29 | (AC006<br>067)<br>unknow<br>n<br>protei<br>n<br>[Arabi  |



|        |     |                                 |     |  |  |  |  |  |  |  |              |    |             |             |  |
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| 167671 | 610 | 0967:5<br>278..4<br>893         | nap |  |  |  |  |  |  |  | 12           | 58 | 519         | 31          | 259)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]               |
|        |     | ATL8C1<br>2081:1<br>369..8<br>6 |     |  |  |  |  |  |  |  | g21911<br>30 |    | 9.7e-<br>64 |             | (AF007<br>269)<br>A IG00<br>2N01.7<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167672 | 612 | ATL8C4<br>1577:7<br>24..1       | nap |  |  |  |  |  |  |  | g47551<br>99 | 58 | 321         | 2.4e-<br>31 | (AC007<br>018)<br>hypo<br>thetical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 167673 | 613 | ATL8C1<br>3159:3<br>00..1       | nap |  |  |  |  |  |  |  | g36081<br>36 | 58 | 372         | 8.9e-<br>20 | (AC005<br>314)<br>defend<br>er<br>again<br>st cell<br>death<br>[Arabi<br>dopsis<br>thalia<br>na] |





|        |               |                                   |     |  |  |  |  |  |  |  |  |              |    |     |             |  |                                     |
|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--|--|--------------|----|-----|-------------|--|-------------------------------------|
| 167682 | ATU029<br>622 | ATL8C2<br>1414:1<br>..733         | nap |  |  |  |  |  |  |  |  | g37859<br>73 | 58 | 417 | 1.0e-<br>40 | (A0005<br>560)<br>putati<br>ve<br>homeob<br>ox<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] | io<br>vulgar<br>is<br>vulgar<br>is] |
| 167683 | ATU029<br>623 | ATL8S1<br>9625:4<br>11..1         | nap |  |  |  |  |  |  |  |  | g31768<br>83 | 58 | 216 | 2.2e-<br>18 | (AF065<br>159)<br>RNase<br>III<br>[Brady<br>rhizob<br>ium<br>japoni<br>cum]                        |                                     |
| 167684 | ATU029<br>624 | ATL8C4<br>5048:1<br>539..1<br>330 | nap |  |  |  |  |  |  |  |  | g30803<br>59 | 58 | 159 | 3.6e-<br>11 | (AL022<br>580)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]             |                                     |
| 167685 | ATU029<br>625 | ATL8S6<br>454:1.<br>.474          | nap |  |  |  |  |  |  |  |  | g13286<br>3  | 58 | 224 |             | CHLORO<br>PLAST<br>50S<br>RIBOSO   |                                     |





|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |      |              |  |
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|        |               |                                  |     |  |  |  |  |  |  |  |  |              |    |      |              | gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167690 | ATU029<br>630 | ATL8C6<br>510:24<br>35..26<br>53 | nap |  |  |  |  |  |  |  |  | g38927<br>06 | 58 | 324  | 6.8e-<br>31  | (AL033<br>545)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                      |
| 167691 | ATU029<br>631 | ATL8C9<br>08:1..<br>755          | nap |  |  |  |  |  |  |  |  | g48862<br>82 | 58 | 1129 | 3.4e-<br>104 | (AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                          |
| 167692 | ATU029<br>632 | ATL8C2<br>7958:5<br>58..1        | nap |  |  |  |  |  |  |  |  | g46782<br>07 | 58 | 623  |              | (AC007<br>134)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal] |

|        |               |                                 |     |  |  |  |  |  |              |    |     |             |   |
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| 167693 | ATU029<br>633 | ATL8C2<br>8922:1<br>..1140      | nap |  |  |  |  |  | g49143<br>73 | 58 | 371 | 4.3e-<br>31 | (AC007<br>584)<br>putative<br>protein<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na]                            |
| 167694 | ATU029<br>634 | ATL8S1<br>5285:4<br>75..1       | nap |  |  |  |  |  | g48039<br>33 | 58 | 235 | 2.1e-<br>22 | (AC006<br>264)<br>putative<br>disease<br>resistance<br>response<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167695 | ATU029<br>635 | ATL8S2<br>7669:3<br>42..48<br>2 | nap |  |  |  |  |  | g10016<br>99 | 58 | 119 | 7.5e-<br>07 | (D6400<br>2)<br>hypothetical<br>protein<br>[Synec<br>hocystis<br>sp.]   |
| 167696 | ATU029<br>636 | ATL8C4<br>3114:1<br>..1154      | nap |  |  |  |  |  | g17698<br>98 | 58 | 653 | 1.4e-<br>67 | (Y0801<br>0)<br>lectin  |

|        |               |                            |     |  |  |  |  |  |  |  |  |              |    |     |             |  |   |
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| 167697 | ATU029<br>637 | ATL8C3<br>7014:8<br>49..1  | nap |  |  |  |  |  |  |  |  | g47387<br>4  | 58 | 134 |             | (U0828<br>5) a<br>membra<br>ne-<br>associ<br>ated<br>salt-<br>induci<br>ble<br>protei<br>n<br>[Nicot<br>iana<br>tabacu<br>m] | recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167698 | ATU029<br>638 | ATL8C4<br>9269:1<br>190..1 | nap |  |  |  |  |  |  |  |  | g33273<br>95 | 58 | 410 | 3.9e-<br>26 | (AC004<br>483)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                       | recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167699 | ATU029<br>639 | ATL8S1<br>2294:5<br>76..1  | nap |  |  |  |  |  |  |  |  | g26190<br>19 | 58 | 291 | 3.4e-<br>14 | (AF027<br>868)<br>putati<br>ve<br>transp<br>orter<br>[Bacil<br>lus]  | recept<br>or<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |

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| 167700 | ATU029<br>640 | ATL8S2<br>7115:1<br>..308 | nap |  |  |  |  |  |  |  |  | 58     | 118         | 2.2e-<br>08                 | (AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 167701 | ATU029<br>641 | ATL8C6<br>48:129<br>9..1  | nap |  |  |  |  |  |  |  |  | 58     | 190         | 5.0e-<br>15                 | (AL050<br>300)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 167702 | ATU029<br>642 | ATL8C2<br>0:1..1<br>151   | nap |  |  |  |  |  |  |  |  | 58     | 837         | 2.7e-<br>81                 | (AC007<br>354)<br>Simila<br>r to<br>[]  |
| 167703 | ATU029<br>643 | ATL8S2<br>0375:5<br>74..1 | nap |  |  |  |  |  |  |  |  | 58, 45 | 141,<br>161 | 9.9e-<br>15,<br>6.8e-<br>14 | (U8668<br>9)<br>exuT<br>[Erwin<br>ia<br>chrysa<br>nthemi<br>];<br>PROBAB<br>LE<br>GLUCAR<br>ATE<br>TRANSP |

|             |               |                           |     |  |  |  |  |  |  |                                 |      |  |              |    |     |             |   |
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| 167704      | ATU029<br>644 | ATL8C1<br>4816:1<br>..501 | nap |  |  |  |  |  |  | ATL8C1<br>4816:1<br>69..50<br>1 | 0.99 |  | g45586<br>87 | 57 | 619 | 1.0e-<br>42 | ORTER<br>[Bacil<br>lus<br>subtil<br>is]<br>(AC006<br>586)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167705      | ATU029<br>645 | ATL8C3<br>0904:1<br>..426 | nap |  |  |  |  |  |  | ATL8C3<br>0904:7<br>9..426      | 0.99 |  | g10728<br>66 | 57 | 350 | 3.0e-<br>31 | short-<br>chain<br>alcohol<br>dehydr<br>ogenas<br>e<br>homolo<br>g<br>socA1<br>-<br>Myxoco<br>ccus<br>xanthu<br>s []              |
| 167706<br>; | ATU029<br>646 | ATL8C4<br>2956:8<br>42..1 | nap |  |  |  |  |  |  | ATL8C4<br>2956:6<br>52..20<br>2 | 0.99 |  | g42635<br>48 | 57 | 766 | 3.7e-<br>63 | (AC006<br>250)<br>putati<br>ve<br>En/Spm<br>transp<br>oson<br>protei<br>n<br>(mosai   |

|        |               |                                   |     |  |  |  |  |                                   |      |              |    |     |             |   |  |
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| 167707 | ATU029<br>647 | ATL8S1<br>1058:1<br>..530         | nap |  |  |  |  | ATL8S1<br>1058:1<br>..515         | 0.99 | g28942<br>38 | 57 | 270 | 3.7e-<br>18 | (AL021<br>841)<br>sigJ<br>[Mycob<br>acteri<br>um<br>tuberc<br>ulosis<br>]                               | C<br>protei<br>n)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167708 | ATU029<br>648 | ATL8C8<br>420:17<br>80..31<br>98  | nap |  |  |  |  | ATL8C8<br>420:22<br>99..31<br>55  | 0.97 | g33954<br>35 | 57 | 375 | 1.3e-<br>20 | (AC004<br>683)<br>myosin<br>heavy<br>chain-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |  |
| 167709 | ATU029<br>649 | ATL8C1<br>0207:1<br>428..3<br>096 | nap |  |  |  |  | ATL8C1<br>0207:1<br>450..2<br>891 | 0.97 | g45672<br>65 | 57 | 658 |             | (AC006<br>841)<br>putati<br>ve<br>kinesi<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |  |

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|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|-------------------------------|--------|------------|---|
| 167710 | ATU029<br>650 | ATL8S6<br>698:1.<br>.448          | nap |  |  |  | ATL8S6<br>698:82<br>..432         | 0.96 | g26879<br>42                  | 57     | 263        | (AE001<br>119)<br>hemoly<br>sin<br>(tlyC)<br>[Borre<br>lia<br>burgdo<br>rferil]   |
| 167711 | ATU029<br>651 | ATL8C9<br>167:1.<br>.1719         | nap |  |  |  | ATL8C9<br>167:12<br>3..169<br>8   | 0.96 | g34829<br>20                  | 57     | 1360       | (AC003<br>970)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]   |
| 167712 | ATU029<br>652 | ATL8C1<br>4761:2<br>392..3<br>704 | nap |  |  |  | ATL8C1<br>4761:3<br>492..2<br>415 | 0.93 | g45858<br>82,<br>g26513<br>16 | 57, 35 | 442,<br>40 | (AC005<br>850)<br>PSI<br>type<br>III<br>chloro<br>phyll<br>a/b-<br>bindin<br>g<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal];<br>(AC002<br>336)<br>unknow<br>n<br>protei |



|        |               |                                 |     |  |  |  |  |  |      |  |              |    |      |              |  |
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| 167713 | ATU029<br>653 | ATL8S1<br>4103:4<br>53..15<br>6 | nap |  |  |  |  |  | 0.93 |  | g22752<br>00 | 57 | 293  | 7.0e-<br>24  | n<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(AC002<br>337)<br>polyri<br>bonucl<br>eotide<br>phosph<br>orylas<br>e<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167714 | ATU029<br>654 | ATL8S2<br>2946:1<br>08..57<br>2 | nap |  |  |  |  |  | 0.93 |  | g23987<br>76 | 57 | 148  | 3.3e-<br>12  | (X9962<br>2)<br>putati<br>ve<br>regula<br>tor of<br>catech<br>ol<br>degrad<br>ative<br>operon<br>[Rhodo<br>coccus<br>opacus<br>]                                 |
| 167715 | ATU029<br>655 | ATL8C4<br>2903:1<br>..1448      | nap |  |  |  |  |  | 0.93 |  | g45812<br>07 | 57 | 1428 | 3.3e-<br>120 | (Y1791<br>4)<br>cyclic<br>nucleo<br>tide<br>and<br>calmod  |

|        |               |                            |     |  |  |  |  |  |                                 |      |  |              |    |     |             |   |
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| 167716 | ATU029<br>656 | ATL8C2<br>3481:6<br>24..1  | nap |  |  |  |  |  | ATL8C2<br>3481:1<br>70..26      | 0.93 |  | g22449<br>60 | 57 | 608 | 1.2e-<br>55 | ulin-<br>regula<br>ted<br>ion<br>channe<br>l<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167717 | ATU029<br>657 | ATL8S3<br>943:57<br>5..1   | nap |  |  |  |  |  | ATL8S3<br>943:42<br>3..27       | 0.93 |  | g16575<br>38 | 57 | 55  | 0.28        | (Z9734<br>0)<br>simila<br>rity<br>to<br>copia-<br>like<br>retrot<br>ranspo<br>son<br>[Arabi<br>dopsis<br>thalia<br>na]                      |
| 167718 | ATU029<br>658 | ATL8C2<br>2385:1<br>224..1 | nap |  |  |  |  |  | ATL8C2<br>2385:1<br>224..4<br>0 | 0.92 |  | g44551<br>99 | 57 | 268 | 9.2e-<br>16 | (U7385<br>7)<br>galact<br>oside<br>O-<br>acetyl<br>transf<br>erase<br>[Esche<br>richia<br>coli]<br>(AL035<br>440)<br>putati<br>ve<br>protei |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |   |
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| 167719 | ATU029<br>659 | ATL8C3<br>4883:8<br>51..17<br>99 | nap |  |  |  |  | ATL8C3<br>4883:8<br>51..16<br>90 | 0.92 | g41543<br>52 | 57 | 257 | 9.0e-<br>28 | n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167720 | ATU029<br>660 | ATL8C2<br>6934:2<br>350..7<br>76 | nap |  |  |  |  | ATL8C2<br>6934:2<br>255..7<br>90 | 0.92 | g23350<br>97 | 57 | 603 | 9.1e-<br>60 | (AC002<br>339)<br>putati<br>ve<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167721 | ATU029<br>661 | ATL8S1<br>3672:4<br>24..1        | nap |  |  |  |  | ATL8S1<br>3672:4<br>24..50       | 0.92 | g36473<br>31 | 57 | 79  | 9.7e-<br>07 | (AL031<br>644)<br>putati<br>ve<br>secret<br>ory<br>protei<br>n<br>[Schiz<br>osacch<br>aromyc<br>es<br>pombel]         |
| 167722 | ATU029<br>662 | ATL8C4<br>7126:1                 | nap |  |  |  |  | ATL8C4<br>7126:1                 | 0.91 | g36881<br>86 | 57 | 482 | 5.4e-<br>45 | (AL031<br>804)  |

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| 167723 | ATU029<br>663 | ..1502                            |     |  |  |  |  | 35..13<br>44                     | 0.90 | g42635<br>45 | 57 | 935 | 2.6e-<br>80 | putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
|        |               |                                   |     |  |  |  |  |                                  |      |              |    |     |             | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>element<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                          |
| 167724 | ATU029<br>664 | ATL8C3<br>0948:1<br>374..2<br>468 | nap |  |  |  |  | ATL8C2<br>9710:1<br>194..6<br>05 | 0.90 | g19463<br>60 | 57 | 422 | 2.3e-<br>41 | (U9321<br>5)<br>elicit<br>or<br>respon<br>se<br>elemen<br>t<br>bindin<br>g<br>protei<br>n<br>WRKY3<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na] |
|        |               |                                   |     |  |  |  |  |                                  |      |              |    |     |             |   |

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| 167725 | ATU029<br>665 | ATL8C1<br>6437:1<br>..983  | nap |  |  |  | ATL8C1<br>6437:1<br>88..94<br>2 | 0.89 | g36953<br>77 | 57 | 791  | 7.7e-<br>76  | (AF096<br>370)<br>contai<br>ns<br>simila<br>rity<br>to NAM<br>(no<br>apical<br>merist<br>em) -<br>like<br>protei<br>ns<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167726 | ATU029<br>666 | ATL8C1<br>745:1.<br>.2361  | nap |  |  |  | ATL8C1<br>745:15<br>1..235<br>5 | 0.87 | g39140<br>07 | 57 | 1797 | 4.4e-<br>189 | MITOCH<br>ONDRIA<br>L LON<br>PROTEA<br>SE<br>HOMOLO<br>G 2<br>PRECUR<br>SOR<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167727 | ATU029<br>667 | ATL8C1<br>4072:1<br>..3248 | nap |  |  |  | ATL8C1<br>4072:4<br>0..324<br>8 | 0.87 | g31526<br>13 | 57 | 854  | 2.5e-<br>86  | (AC004<br>482)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia   |

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| 167728 | ATU029<br>668 | ATL8C1<br>4213:9<br>19..1         | nap |  |  |  | ATL8C1<br>4213:9<br>19..19<br>4   | 0.87 | g33416<br>86 | 57 | 982 | 1.5e-<br>88 | na]<br>(AC003<br>672)<br>putati<br>ve<br>glycos<br>yl<br>transf<br>erase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167729 | ATU029<br>669 | ATL8C6<br>535:1.<br>.1145         | nap |  |  |  | ATL8C6<br>535:53<br>6..114<br>5   | 0.87 | g31932<br>97 | 57 | 869 | 3.7e-<br>90 | (AF069<br>298)<br>simila<br>r to<br>epoxid<br>e<br>hydrol<br>ases<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 167730 | ATU029<br>670 | ATL8C4<br>8335:7<br>189..6<br>733 | nap |  |  |  | ATL8C4<br>8335:7<br>119..6<br>733 | 0.86 | g37860<br>01 | 57 | 466 | 6.5e-<br>45 | (AC005<br>499)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |
| 167731 | ATU029<br>671 | ATL8C4<br>861:12<br>3..128<br>2   | nap |  |  |  | ATL8C4<br>861:12<br>3..691        | 0.86 | g47739<br>10 | 57 | 109 | 3.7e-<br>05 | (AF147<br>259)<br>No<br>defini<br>tion  |

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| 167732 | ATU029<br>672 | ATL8C2<br>6270:1<br>481..1<br>19 | nap |  |  |  |  | ATL8C2<br>6270:1<br>386..1<br>93 | 0.86 | g30154<br>88 | 57 | 594  | 2.4e-<br>65  | (U5847<br>4)<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Lycop<br>ersico<br>n<br>escule<br>ntum]   |
| 167733 | ATU029<br>673 | ATL8C3<br>703:26<br>37..61<br>5  | nap |  |  |  |  | ATL8C3<br>703:26<br>37..61<br>6  | 0.86 | g31352<br>51 | 57 | 1298 | 2.8e-<br>143 | (AC003<br>058)<br>putati<br>ve<br>recept<br>or<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167734 | ATU029<br>674 | ATL8C4<br>4555:1<br>958..1       | nap |  |  |  |  | ATL8C4<br>4555:1<br>693..2<br>33 | 0.86 | g22447<br>92 | 57 | 947  | 2.9e-<br>92  | (Z9733<br>6)<br>ankyri<br>n<br>homolo<br>g<br>[Arabi<br>dopsis   |

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| 167735 | ATU029<br>675 | ATL8C2<br>0902:1<br>733..1<br>380 | nap |  |  |  |  | ATL8C2<br>0902:1<br>639..1<br>380 | 0.86 | g31842<br>87 | 57 | 566  | 1.5e-<br>57  | thalia<br>na]<br>(AC004<br>136)<br>revers<br>e-<br>transc<br>riptas<br>e-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167736 | ATU029<br>676 | ATL8C1<br>0278:1<br>..3226        | nap |  |  |  |  | ATL8C1<br>0278:1<br>57..32<br>26  | 0.86 | g10016<br>49 | 57 | 551  | 4.8e-<br>42  | (D6400<br>2) DNA<br>gyrase<br>A<br>subuni<br>t<br>[Synec<br>hocyst<br>is<br>sp.]  |
| 167737 | ATU029<br>677 | ATL8C4<br>5208:4<br>100..1<br>430 | nap |  |  |  |  | ATL8C4<br>5208:4<br>025..1<br>430 | 0.84 | g46783<br>46 | 57 | 1724 | 1.0e-<br>152 | (AL049<br>659)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167738 | ATU029<br>678 | ATL8C3<br>4895:1<br>..544         | nap |  |  |  |  | ATL8C3<br>4895:1<br>3..525        | 0.84 | g37215<br>45 | 57 | 98   | 4.4e-<br>10  | (AB006<br>206)<br>ORF4<br>[Strep<br>tomyce  |



|        |               |                                 |     |  |  |  |  |                                 |      |              |    |     |             |   |
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| 167739 | ATU029<br>679 | ATL8C4<br>5989:1<br>..845       | nap |  |  |  |  | ATL8C4<br>5989:2<br>54..82<br>3 | 0.83 | g36436<br>10 | 57 | 697 | 5.7e-<br>56 | s<br>griseu<br>s]<br>(AC005<br>395)<br>putati<br>ve<br>serine<br>/threo<br>nine<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167740 | ATU029<br>680 | ATL8S1<br>4759:1<br>..605       | nap |  |  |  |  | ATL8S1<br>4759:5<br>45..11<br>5 | 0.83 | g44163<br>03 | 57 | 584 | 1.2e-<br>36 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |
| 167741 | ATU029<br>681 | ATL8C3<br>8881:2<br>44..87<br>8 | nap |  |  |  |  | ATL8C3<br>8881:2<br>44..79<br>0 | 0.83 | g29822<br>72 | 57 | 178 | 1.3e-<br>13 | (AF051<br>220)<br>hypoth<br>etical<br>protei<br>n<br>[Picea<br>marian<br>a]   |
| 167742 | ATU029<br>682 | ATL8S2<br>5952:5<br>45..1       | nap |  |  |  |  | ATL8S2<br>5952:5<br>35..43      | 0.82 | g10735<br>49 | 57 | 241 | 1.7e-<br>19 | livh<br>protei<br>n -<br>Escher<br>ichia<br>coli<br>[Esche  |

|        |               |                                   |     |  |  |  |                                   |      |              |    |      |              |   |
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| 167743 | ATU029<br>683 | ATL8C1<br>9687:11<br>..1777       | nap |  |  |  | ATL8C1<br>9687:3<br>45..17<br>70  | 0.82 | g39157<br>37 | 57 | 659  | 5.2e-<br>56  | richia<br>coli]   |
| 167744 | ATU029<br>684 | ATL8C7<br>505:15<br>12..55<br>1   | nap |  |  |  | ATL8C7<br>505:13<br>05..62<br>9   | 0.80 | g35488<br>08 | 57 | 656  | 2.5e-<br>64  | (AC005<br>313)<br>unknow<br>n protei<br>n [Arabi<br>dopsis<br>thalia<br>nal]  |
| 167745 | ATU029<br>685 | ATL8C1<br>0227:2<br>520..3<br>234 | nap |  |  |  | ATL8C1<br>0227:2<br>520..3<br>197 | 0.80 | g47536<br>60 | 57 | 1178 | 1.1e-<br>107 | (AL049<br>751)<br>putati<br>ve protei<br>n [Arabi<br>dopsis<br>thalia<br>nal] |
| 167746 | ATU029        | ATL8C4                            | nap |  |  |  | ATL8C4                            | 0.80 | g17116       | 57 | 497  |              | PROBAB  |

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| 167747 | 686           | 3388:1<br>305..1<br>23     |     |  |  |  | 3388:5<br>88..12<br>3             | 44   |  |  |  |  |                              | LE<br>ASPAR<br>GINYL-<br>TRNA<br>SYNTH<br>TASE<br>(ASPAR<br>AGINE-<br>-TRNA<br>LIGASE<br>)<br>(ASNRS<br>)<br>[Synec<br>hocyst<br>is<br>sp.]   |
| 167748 | ATU029<br>687 | ATL8C3<br>4473:1<br>..3511 | nap |  |  |  | ATL8C3<br>4473:2<br>006..3<br>238 | 0.80 |  |  |  |  | 7.9e-<br>86,<br>2.7e-<br>100 | (AF049<br>236)<br>unknown<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC005<br>825)<br>putati<br>ve<br>retrot<br>ranspo<br>son<br>polypr<br>otein<br>[Arabi<br>dopsis<br>thalia<br>nal]<br>(U8504<br>1) |
|        | ATU029<br>688 | ATL8S1<br>0619:5           | nap |  |  |  | ATL8S1<br>0619:3                  | 0.79 |  |  |  |  | 1.8e-<br>21                  |   |



|        |               |                                  |     |  |  |  |  |                                   |      |              |    |      |              |  |
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| 167750 | ATU029<br>690 | ATL8C9<br>325:1.<br>.3133        | nap |  |  |  |  | ATL8C9<br>325:15<br>5..176<br>8   | 0.76 | g45389<br>01 | 57 | 2877 | 4.2e-<br>269 | [Mycob<br>acteri<br>um<br>leprae<br>]<br>(AL049<br>482)<br>RNA-<br>direct<br>ed DNA<br>polyme<br>rase-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167751 | ATU029<br>691 | ATL8C4<br>5490:1<br>292..5<br>77 | nap |  |  |  |  | ATL8C4<br>5490:1<br>228..1<br>011 | 0.76 | g45858<br>77 | 57 | 1076 | 8.4e-<br>67  | (AC005<br>850)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167752 | ATU029<br>692 | ATL8C3<br>729:1.<br>.1502        | nap |  |  |  |  | ATL8C3<br>729:77<br>5..142<br>1   | 0.76 | g48742<br>90 | 57 | 914  | 8.9e-<br>72  | (AC007<br>212)<br>putati<br>ve<br>purple<br>acid<br>phosph<br>atase<br>[Arabi<br>dopsis<br>thalia  |

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| 167753 | ATU029<br>693 | ATL8C4<br>77:261<br>..1414       | nap |  |  |  | ATL8C4<br>77:482<br>..1286       | 0.75 | g39280<br>84 | 57 | 896  | 3.8e-<br>97 | na]<br>(AC005<br>770)<br>retrot<br>ranspo<br>son-<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]         |
| 167754 | ATU029<br>694 | ATL8C1<br>7812:2<br>088..2<br>97 | nap |  |  |  | ATL8C1<br>7812:1<br>841..2<br>97 | 0.73 | g47739<br>01 | 57 | 1606 |             | (AF074<br>021)<br>putati<br>ve<br>recept<br>or-<br>like<br>protei<br>n<br>kinase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167755 | ATU029<br>695 | ATL8C6<br>233:92<br>8..1         | nap |  |  |  | ATL8C6<br>233:92<br>8..303       | 0.72 | g27379<br>73 | 57 | 699  | 1.0e-<br>49 | (U8362<br>5)<br>protei<br>n<br>kinase<br>ZmMEK1<br>[Zea<br>mays]  |
| 167756 | ATU029<br>696 | ATL8C5<br>793:1.<br>.1292        | nap |  |  |  | ATL8C5<br>793:19<br>3..501       | 0.72 | g41853<br>11 | 57 | 1254 |             | (AF090<br>446)<br>polypr<br>otein<br>[Zea   |

|        |               |                            |     |  |  |  |                                 |      |              |    |      |              |  |
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| 167757 | ATU029<br>697 | ATL8C1<br>9860:1<br>..2721 | nap |  |  |  | ATL8C1<br>9860:5<br>5..266<br>4 | 0.71 | g21092<br>75 | 57 | 3118 | 6.9e-<br>296 | mays]<br>(U9710<br>6)<br>downy<br>mildew<br>resist<br>ance<br>protei<br>n RPP5<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167758 | ATU029<br>698 | ATL8C3<br>3220:1<br>..1368 | nap |  |  |  | ATL8C3<br>3220:4<br>70..93<br>1 | 0.70 | g33778<br>16 | 57 | 435  | 3.6e-<br>44  | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167759 | ATU029<br>699 | ATL8C1<br>902:1.<br>.1556  | nap |  |  |  | ATL8C1<br>902:51<br>8..103<br>0 | 0.70 | g45860<br>66 | 57 | 984  | 1.5e-<br>118 | (AC006<br>194)<br>putati<br>ve pol<br>polypr<br>otein,   |

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| 167760 | ATU029<br>700 | ATL8S3<br>0100:1<br>..515  | nap |  |  |  |  |  | ATL8S3<br>0100:2<br>93..36      | 0.70 | g29062<br>36 | 57 | 71  | 1.6e-<br>06 | (AF047<br>527)<br>activa<br>tor<br>protei<br>n<br>[Pseud<br>omonas<br>fluore<br>scens] | 3'<br>partia<br>l<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167761 | ATU029<br>701 | ATL8C1<br>1899:1<br>480..1 | nap |  |  |  |  |  | ATL8C1<br>1899:1<br>382..6<br>0 | 0.68 | g45393<br>94 | 57 | 647 | 5.2e-<br>62 | (AL035<br>526)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]     |  |
| 167762 | ATU029<br>702 | ATL8S1<br>1716:1<br>..493  | nap |  |  |  |  |  | ATL8S1<br>1716:4<br>7..297      | 0.68 | g40068<br>95 | 57 | 498 | 1.6e-<br>21 | (Z9970<br>8)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]       |  |
| 167763 | ATU029<br>703 | ATL8C4<br>1151:1<br>..685  | nap |  |  |  |  |  | ATL8C4<br>1151:6<br>81..26      | 0.66 | g28945<br>99 | 57 | 485 | 1.3e-<br>51 | (AL021<br>889)<br>putati   |  |



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| 167764 | ATU029<br>704 | ATL8S5<br>309:1.<br>.558  | nap |  |  |  |  |  |  | 7 | ATL8S5<br>309:25<br>..533       | 0.66 | g54870<br>6  | 57 | 265 | 2.1e-<br>20 | ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167765 | ATU029<br>705 | ATL8S1<br>2434:6<br>33..1 | nap |  |  |  |  |  |  |   | ATL8S1<br>2434:5<br>67..15<br>3 | 0.66 | g30470<br>75 | 57 | 305 | 5.2e-<br>33 | (AF058<br>914)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s DNA-<br>bindin<br>g and<br>dimeri<br>zation<br>domain<br>s<br>(PFam: |

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| 167766 | ATU029<br>706 | ATL8C2<br>2988:1<br>931..2<br>03 | nap |  |  |  |  | ATL8C2<br>2988:1<br>774..2<br>23 | 0.65 | g42635<br>43                  | 57     | 2332       | 4.0e-<br>240          | (AC006<br>250)<br>putati<br>ve<br>Athila<br>retro<br>ement<br>ORF1<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167767 | ATU029<br>707 | ATL8C7<br>793:10<br>03..48<br>0  | nap |  |  |  |  | ATL8C7<br>793:93<br>6..779       | 0.64 | g36418<br>70                  | 57     | 133        | 2.8e-<br>09           | (AJ011<br>013)<br>hypoth<br>etical<br>protei<br>n<br>[Cicer<br>arieti<br>num]  |
| 167768 | ATU029<br>708 | ATL8C2<br>6838:1<br>620..1       | nap |  |  |  |  | ATL8C2<br>6838:1<br>228..2<br>59 | 0.64 | g36081<br>28,<br>g28299<br>10 | 57, 48 | 65,<br>424 | 0.019,<br>2.7e-<br>51 | (AC005<br>314)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi  |



|        |               |                                 |     |  |  |  |   |               |              |    |      |              |   |
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| 167771 | ATU029<br>711 | ATL8C3<br>3244:2<br>995..1      | nap |  |  |  | ATL8C3<br>3244:1<br>687..7<br>47                                    | 0.60          | g30470<br>86 | 57 | 1797 | 3.8e-<br>184 | (AF058<br>914)<br>simila<br>r to<br>revers<br>e<br>transc<br>riptas<br>e<br>(Pfam:<br>transc<br>ript f<br>act.hm<br>m,<br>score:<br>72.31)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167772 | ATU029<br>712 | ATL8C3<br>7746:7<br>36..31<br>5 | nap |  |  |  | ATL8C3<br>7746:6<br>94..58<br>7                                     | 0.59          | g17433<br>88 | 57 | 110  | 9.9e-<br>06  | (Y0987<br>4)<br>pSbaNS<br>5<br>protei<br>n<br>[Sorgh<br>um<br>bicolor<br>r]   |
| 167773 | ATU029<br>713 | ATL8C1<br>5614:6<br>7..761      | nap |  |  |  | ATL8C1<br>5614:1<br>47..20<br>7,<br>ATL8C1<br>5614:5<br>83..47<br>4 | 0.58,<br>0.89 | g26233<br>06 | 57 | 211  | 5.3e-<br>21  | (AC002<br>409)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |

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| 167774 | ATU029<br>714 | ATL8C1<br>4425:4<br>744..1       | nap |  |  | ATL8C1<br>4425:4<br>358..2<br>4  | 0.58 | g45443<br>72 | 57 | 1693 | 1.1e-<br>151 | (AC006<br>920)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167775 | ATU029<br>715 | ATL8C4<br>3951:2<br>916..9<br>39 | nap |  |  | ATL8C4<br>3951:2<br>366..9<br>39 | 0.58 | g33193<br>60 | 57 | 1618 |              | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167776 | ATU029<br>716 | ATL8C3<br>2234:1<br>..675        | nap |  |  | ATL8C3<br>2234:1<br>49..67<br>5  | 0.56 | g28303<br>9  | 57 | 359  | 1.4e-<br>26  | gene<br>iojap<br>protei<br>n -<br>maize<br>[Zea   |

|        |               |                            |     |  |  |  |                                 |      |              |    |     |             |   |
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| 167777 | ATU029<br>717 | ATL8C4<br>5676:6<br>95..1  | nap |  |  |  | ATL8C4<br>5676:6<br>95..32      | 0.56 | g44902<br>96 | 57 | 434 | 2.5e-<br>58 | mays]<br>(AL035<br>678)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 167778 | ATU029<br>718 | ATL8C4<br>8172:9<br>74..1  | nap |  |  |  | ATL8C4<br>8172:7<br>10..44<br>9 | 0.52 | g28275<br>48 | 57 | 468 | 2.7e-<br>35 | (AL021<br>635)<br>cytoch<br>rome -<br>P450 -<br>like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 167779 | ATU029<br>719 | ATL8S2<br>9822:5<br>08..46 | nap |  |  |  | ATL8S2<br>9822:4<br>28..46      | 0.52 | g14085<br>76 | 57 | 163 | 2.5e-<br>15 | (U3197<br>8)<br>alkyl<br>hydrop<br>eroxid<br>e<br>reduct<br>ase C<br>[Mycob<br>acteri<br>um<br>smegma<br>tis] |
| 167780 | ATU029<br>720 | ATL8C1<br>186:16<br>8..784 | nap |  |  |  | ATL8C1<br>186:16<br>8..680      | 0.51 | g47139<br>51 | 57 | 270 | 1.2e-<br>21 | (AC007<br>293)<br>hypoth<br>etical  |

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| 167781 | ATU029<br>721 | ATL8C4<br>1889:7<br>94..14<br>8  | nap |  |  |  |  |  | ATL8C4<br>1889:6<br>77..14<br>8 | 0.51 | g47538<br>89 | 57 | 454 | 5.3e-<br>37 | prote<br>n [Arabi<br>dopsis<br>thalia<br>na]<br>(AJ005<br>761)<br>Tpv2-<br>1c<br>[Phase<br>olus<br>vulgar<br>is] |
| 167782 | ATU029<br>722 | ATL8C4<br>6135:3<br>35..10<br>98 | nap |  |  |  |  |  | ATL8C4<br>6135:3<br>35..95<br>6 | 0.51 | g47551<br>89 | 57 | 901 | 4.2e-<br>75 | (AC007<br>018)<br>putati<br>ve<br>cytoch<br>rome<br>P450<br>[Arabi<br>dopsis<br>thalia<br>na]                    |
| 167783 | ATU029<br>723 | ATL8C3<br>9733:4<br>80..1        | nap |  |  |  |  |  | ATL8C3<br>9733:4<br>80..12<br>1 | 0.51 | g17070<br>16 | 57 | 252 | 1.4e-<br>19 | (U7872<br>1)<br>cadmiu<br>m-<br>induce<br>d<br>protei<br>n<br>isolog<br>[Arabi<br>dopsis<br>thalia<br>na]        |
| 167784 | ATU029<br>724 | ATL8S2<br>0068:1                 | nap |  |  |  |  |  | ATL8S2<br>0068:4                | 0.50 | g17637<br>10 | 57 | 165 | 1.3e-<br>13 | (Z8333<br>7)   |

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|--------|---------------|----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|------|--------------|---|
| 167785 | ATU029<br>725 | ..445                            | nap |  |  |  | 7..427                            | 0.50 | g44552<br>99 | 57 | 848  | 1.4e-<br>74  | highly<br>simila<br>r to<br>phosph<br>otrans<br>ferase<br>system<br>regula<br>tor<br>[Bacil<br>lus<br>subtil<br>is] |
|        |               | ATL8C4<br>9268:1<br>823..7<br>22 |     |  |  |  | ATL8C4<br>9268:1<br>596..7<br>22  |      |              |    |      |              | (AL035<br>528)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                  |
| 167786 | ATU029<br>726 | ATL8C1<br>4433:7<br>7..105<br>66 | nap |  |  |  | ATL8C1<br>4433:7<br>7..105<br>66  | 0.50 | g44266<br>10 | 57 | 1113 | 7.5e-<br>152 | (AF096<br>896)<br>pushov<br>er<br>[Droso<br>phila<br>melano<br>gaster<br>]  |
| 167787 | ATU029<br>727 | ATL8C3<br>2889:4<br>7..214<br>0  | nap |  |  |  | ATL8C3<br>2889:1<br>748..2<br>140 | 0.49 | g21601<br>41 | 57 | 910  | 2.2e-<br>90  | (AC000<br>375)<br>Strong<br>simila<br>rity<br>to<br>Tritic<br>um  |





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| 167790 | ATU029<br>730 | ATL8C1<br>464:33<br>9..215<br>2 | nap |  |  |  |  |  | ATL8C1<br>464:15<br>43..21<br>00 | 0.47 | g45860<br>69 | 57 | 289 | 2.2e-<br>29 | [Arabi<br>dopsis<br>thalia<br>na]<br>(AC006<br>194)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 167791 | ATU029<br>731 | ATL8C1<br>9303:8<br>74..1       | nap |  |  |  |  |  | ATL8C1<br>9303:7<br>95..38       | 0.47 | g33778<br>36 | 57 | 168 | 8.3e-<br>10 | (AF075<br>598)<br>contai<br>ns<br>simila<br>rity<br>to<br>revers<br>e<br>transc<br>riptas<br>es<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167792 | ATU029<br>732 | ATL8S1<br>6770:1<br>..473       | nap |  |  |  |  |  | ATL8S1<br>6770:1<br>4..465       | 0.47 | g32015<br>64 | 57 | 390 | 5.1e-<br>36 | (AJ006<br>514)<br>prolip<br>oprote<br>in<br>diacyl<br>glycer<br>yl<br>transf   |

|        |               |                                  |     |  |  |  |  |  |                                  |      |  |              |    |      |              |   |                                       |
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| 167793 | ATU029<br>733 | ATL8C8<br>963:25<br>74..1        | nap |  |  |  |  |  | ATL8C8<br>963:22<br>73..61       | 0.46 |  | g45396<br>60 | 57 | 2072 | 5.6e-<br>209 | (AF061<br>282)<br>polypr<br>oteins<br>[Sorgh<br>um<br>bicolor<br>r]                     | erase<br>[Vibri<br>o<br>choler<br>ae] |
| 167794 | ATU029<br>734 | ATL8C2<br>177:15<br>42..93       | nap |  |  |  |  |  | ATL8C2<br>177:15<br>40..21<br>2  | 0.45 |  | g28646<br>16 | 57 | 867  | 1.9e-<br>82  | (AL021<br>811)<br>hypoth<br>etical<br>protein<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |                                       |
| 167795 | ATU029<br>735 | ATL8S1<br>5204:1<br>..597        | nap |  |  |  |  |  | ATL8S1<br>5204:7<br>1..562       | 0.45 |  | g26324<br>27 | 57 | 79   | 0.0011       | (Z9910<br>4)<br>ybbA<br>[Bacil<br>lus<br>subtil<br>is]                                  |                                       |
| 167796 | ATU029<br>736 | ATL8C3<br>6555:2<br>904..1<br>07 | nap |  |  |  |  |  | ATL8C3<br>6555:2<br>523..1<br>07 | 0.44 |  | g22450<br>11 | 57 | 1058 | 3.0e-<br>133 | (Z9734<br>1)<br>hypoth<br>etical<br>protein<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |                                       |

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| 167797 | ATU029<br>737 | ATL8S7<br>836:63<br>0..1        | nap |  |  |  | ATL8S7<br>836:60<br>3..17        | 0.44 | g13224<br>9  | 57 | 333 | 7.2e-<br>32 | RECF<br>PROTEI<br>N<br>[Pseud<br>omonas<br>putida<br>]  |
| 167798 | ATU029<br>738 | ATL8C4<br>0838:7<br>04..11<br>0 | nap |  |  |  | ATL8C4<br>0838:6<br>35..11<br>0  | 0.43 | g48364<br>03 | 57 | 209 | 6.3e-<br>16 | (AF117<br>723)<br>seed<br>matura<br>tion<br>protei<br>n PM27<br>[Glyci<br>ne<br>max]            |
| 167799 | ATU029<br>739 | ATL8C3<br>4217:1<br>..1165      | nap |  |  |  | ATL8C3<br>4217:4<br>69..11<br>65 | 0.42 | g38596<br>00 | 57 | 681 | 1.4e-<br>75 | (AF104<br>919)<br>T15B16<br>.6<br>gene<br>produc<br>t<br>[Arabi<br>dopsis<br>thalia<br>na]      |
| 167800 | ATU029<br>740 | ATL8S4<br>787:58<br>9..252      | nap |  |  |  | ATL8S4<br>787:58<br>4..432       | 0.41 | g24988<br>72 | 57 | 103 | 2.7e-<br>05 | HOLLID<br>AY<br>JUNCTI<br>ON DNA<br>HELICA<br>SE<br>RUVA<br>[Pseud<br>omonas<br>aerugi<br>nosa] |
| 167801 | ATU029        | ATL8S8                          | nap |  |  |  |                                  |      | g26337       | 57 | 149 | 1.7e-       | (Z9911  |

|        |               |                                  |     |  |  |  |  |  |                                 |              |    |     |  |             |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|---------------------------------|--------------|----|-----|--|-------------|--|
| 167802 | 741           | 578:61<br>4..152                 |     |  |  |  |  |  |                                 | 68           |    |     |  | 13          | 1)<br>simila<br>r to<br>hypoth<br>etical<br>protei<br>ns<br>from<br>B.<br>subtil<br>is<br>[Bacil<br>lus<br>subtil<br>is] |
|        | ATU029<br>742 | ATL8C4<br>0796:1<br>130..8<br>99 | nap |  |  |  |  |  |                                 | g22449<br>57 | 57 | 248 |  | 1.1e-<br>20 | (Z9734<br>0)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                     |
| 167803 | ATU029<br>743 | ATL8S2<br>7117:1<br>93..69<br>3  | nap |  |  |  |  |  | ATL8S2<br>7117:2<br>10..65<br>6 | 1.00         | 56 | 229 |  | 1.9e-<br>24 | (AC005<br>623)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167804 | ATU029<br>744 | ATL8C3<br>9001:9<br>75..1        | nap |  |  |  |  |  |                                 | g49030<br>18 | 57 | 562 |  | 4.1e-<br>66 | (AB027<br>507)<br>ACE<br>[Arabi<br>dopsis<br>thalia<br>na]   |









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| 167817 | ATU029<br>757 | ATL8C4<br>1781:1<br>938..3<br>47 | nap |  |  |  |  |  |  |  |  | g33778<br>16 | 57 | 2195 | 1.0e-<br>206 | thalia<br>na]<br>(AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son<br>Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167818 | ATU029<br>758 | ATL8C3<br>3164:6<br>60..1        | nap |  |  |  |  |  |  |  |  | g45899<br>54 | 57 | 329  | 6.7e-<br>37  | (AC007<br>169)<br>hypo<br>thetical<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167819 | ATU029<br>759 | ATL8S2<br>203:44<br>0..1         | nap |  |  |  |  |  |  |  |  | g32490<br>87 | 57 | 161  | 1.9e-<br>16  | (AC004<br>473)<br>Contai<br>ns<br>simila<br>rity<br>to TMV  |





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| 167826 | ATU029<br>766 | ATL8C1<br>9245:5<br>76..1  | nap |  |  |  |  |  |  |  |  |  | g43097<br>31 | 57 | 159 | 3.0e-<br>21 | r to<br>hypoth<br>etical<br>protei<br>ns<br>[Bacil<br>lus<br>subtil<br>is]                      |
| 167827 | ATU029<br>767 | ATL8S2<br>598:1.<br>.387   | nap |  |  |  |  |  |  |  |  |  | g43767<br>93 | 57 | 149 | 7.3e-<br>12 | (AC006<br>439)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]          |
| 167828 | ATU029<br>768 | ATL8C1<br>6979:7<br>06..90 | nap |  |  |  |  |  |  |  |  |  | g26186<br>94 | 57 | 622 | 1.2e-<br>62 | (AE001<br>635)<br>CT421<br>hypoth<br>etical<br>protei<br>n<br>[Chlam<br>ydia<br>pneumo<br>niae] |
|        |               |                            |     |  |  |  |  |  |  |  |  |  |              |    |     |             | (AC002<br>510)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis]           |





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| 167835 | ATU029<br>775 | ATL8C4<br>5329:6<br>05..1  | nap |  |  |  |  |  |  | g44173<br>07 | 57 | 651  | 6.1e-<br>59 | AC006<br>446)<br>putati<br>ve pol<br>polypr<br>oteins<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167836 | ATU029<br>776 | ATL8C1<br>4876:1<br>168..1 | nap |  |  |  |  |  |  | g33954<br>26 | 57 | 1063 | 1.6e-<br>90 | (AC004<br>683)<br>unknown<br>protein<br>[Arabi<br>dopsis<br>thalia<br>na]                  |
| 167837 | ATU029<br>777 | ATL8C1<br>6349:9<br>10..40 | nap |  |  |  |  |  |  | g24987<br>31 | 57 | 673  | 5.8e-<br>67 | PROBAB<br>LE<br>NADP-<br>DEPEND<br>ENT<br>OXIDOR<br>EDUCTA<br>SE P1                        |





|        |               |                                  |     |  |  |  |  |  |  |  |  |  |              |    |      |              |  |
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| 167842 | ATU029<br>782 | ATL8C2<br>3916:3<br>555..1       | nap |  |  |  |  |  |  |  |  |  | g42638<br>31 | 57 | 3398 | 3.3e-<br>292 | dopsis<br>thalia<br>nal<br>(AC006<br>067)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>nal]  |
| 167843 | ATU029<br>783 | ATL8C1<br>1287:2<br>901..4<br>23 | nap |  |  |  |  |  |  |  |  |  | g33193<br>60 | 57 | 2091 | 3.6e-<br>161 | (AF077<br>408)<br>contai<br>ns<br>simila<br>rity<br>to<br>Vicia<br>faba<br>retrot<br>ranspo<br>son-<br>like<br>gene<br>(GB:AB<br>007467<br>)<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167844 | ATU029<br>784 | ATL8C4<br>8558:1<br>..1144       | nap |  |  |  |  |  |  |  |  |  | g49268<br>20 | 57 | 132  | 5.5e-<br>09  | (AC004<br>135)<br>T17H7.   |

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|--------|---------------|-----------------------------------|-----|--|--|--|--|--|--|--------------|----|-----|-------------|---|---|
| 167845 | ATU029<br>785 | ATL8C4<br>5480:1<br>021..2<br>138 | nap |  |  |  |  |  |  | g38734<br>08 | 57 | 240 | 3.8e-<br>26 | (L7692<br>6)<br>putati<br>ve<br>zinc<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                  | 5<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167846 | ATU029<br>786 | ATL8S4<br>63:1..<br>191           | nap |  |  |  |  |  |  | g62973<br>5  | 57 | 138 | 8.1e-<br>09 | fill<br>protei<br>n -<br>garden<br>snapdr<br>agon<br>[Antir<br>rhinum<br>majus]                                     | fill<br>protei<br>n -<br>garden<br>snapdr<br>agon<br>[Antir<br>rhinum<br>majus]                                     |
| 167847 | ATU029<br>787 | ATL8C1<br>5039:6<br>32..1         | nap |  |  |  |  |  |  | g30470<br>75 | 57 | 963 | 4.4e-<br>93 | (AF058<br>914)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s DNA- | (AF058<br>914)<br>contai<br>ns<br>simila<br>rity<br>to<br>SRF-<br>type<br>transc<br>riptio<br>n<br>factor<br>s DNA- |



|        |               |                            |     |  |  |  |  |  |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|--|--|--------------|----|------|--------------|--|
| 167850 | ATU029<br>790 | ATL8C2<br>2343:2<br>047..1 | nap |  |  |  |  |  | g44327<br>94 | 57 | 2472 | 1.8e-<br>241 | (AC006<br>437)<br>putati<br>ve<br>Tnp2<br>Taml<br>transp<br>oson<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167851 | ATU029<br>791 | ATL8S2<br>1633:1<br>..528  | nap |  |  |  |  |  | g45593<br>20 | 57 | 153  | 2.8e-<br>06  | (AC007<br>087)<br>putati<br>ve 50S<br>riboso<br>mal<br>protei<br>n Ll<br>[Arabi<br>dopsis<br>thalia<br>na]           |
| 167852 | ATU029<br>792 | ATL8S3<br>0672:4<br>94..1  | nap |  |  |  |  |  | g38450<br>64 | 57 | 181  | 1.8e-<br>16  | (U3972<br>8) ABC<br>transp<br>orter,<br>ATP-<br>bindin<br>g<br>protei<br>n<br>[Mycop<br>lasma<br>genita<br>lium]     |
| 167853 | ATU029        | ATL8S1                     | nap |  |  |  |  |  | g42637       | 57 | 247  | 3.8e-        | (AC006   |

|        |                 |                                  |     |  |  |  |  |  |  |  |  |  |  |  |  |  |              |    |      |              |   |   |
|--------|-----------------|----------------------------------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------|----|------|--------------|---|---|
| 793    | 7612:5<br>51..1 |                                  |     |  |  |  |  |  |  |  |  |  |  |  |  |  | 05           |    |      |              | 18  | 223)<br>putati<br>ve<br>diseas<br>e<br>resist<br>ance<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167854 | ATU029<br>794   | ATL8C1<br>7184:1<br>265..1<br>41 | nap |  |  |  |  |  |  |  |  |  |  |  |  |  | g46461<br>99 | 57 | 1392 | 3.1e-<br>133 | (AC007<br>230)<br>EST<br>gb T22<br>166<br>comes<br>from<br>this<br>gene.<br>[Arabi<br>dopsis<br>thalia<br>na] |   |
| 167855 | ATU029<br>795   | ATL8C4<br>4269:5<br>49..33<br>3  | nap |  |  |  |  |  |  |  |  |  |  |  |  |  | g24628<br>23 | 57 | 130  | 1.9e-<br>05  | (AF000<br>657)<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                             |   |
| 167856 | ATU029<br>796   | ATL8S1<br>9012:4<br>79..1        | nap |  |  |  |  |  |  |  |  |  |  |  |  |  | g26339<br>19 | 57 | 238  | 7.1e-<br>22  | (Z9911<br>2)<br>altern<br>ate   |   |

|        |               |                                  |     |  |  |  |  |  |                                  |              |    |     |             |  |   |
|--------|---------------|----------------------------------|-----|--|--|--|--|--|----------------------------------|--------------|----|-----|-------------|--|---|
| 167857 | ATU029<br>797 | ATL8C3<br>7095:6<br>08..1        | nap |  |  |  |  |  |                                  | g42493<br>87 | 57 | 755 |             |  | gene<br>name:<br>yml;<br>simila<br>r to<br>hypoth<br>etical<br>protei<br>ns<br>[Bacil<br>lus<br>subtil<br>is] |
| 167858 | ATU029<br>798 | ATL8S2<br>4991:6<br>35..1        | nap |  |  |  |  |  | ATL8S2<br>4991:5<br>90..41<br>5  | 0.99         | 56 | 745 | 9.4e-<br>69 |  | (AC005<br>966)<br>Simila<br>r to<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167859 | ATU029<br>799 | ATL8C2<br>1909:1<br>252..5<br>53 | nap |  |  |  |  |  | ATL8C2<br>1909:1<br>137..5<br>56 | 0.99         | 56 | 547 | 1.1e-<br>59 |  | (AC005<br>499)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                        |
| 167860 | ATU029<br>800 | ATL8C3<br>6552:1<br>..531        | nap |  |  |  |  |  | ATL8C3<br>6552:1<br>18..53       | 0.98         | 56 | 78  | 0.19        |  | (Z9338<br>2)<br>F45G2.  |



|        |               |                           |                            |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|---------------------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 167864 | ATU029<br>804 | ..839                     | ATL8C1<br>7716:1<br>..2204 | nap |  |  |  |  | 2..839                           | 0.95 | g47411<br>95 | 56 | 2268 | 2.8e-<br>217 | putative<br>protein<br>[Arabidopsis<br>thaliana]  |
|        |               |                           |                            |     |  |  |  |  | ATL8C1<br>7716:3<br>58..22<br>04 |      |              |    |      |              | (AL049<br>746)<br>ABC<br>transp<br>orter-<br>like<br>protein<br>[Arabidopsis<br>thaliana] |
| 167865 | ATU029<br>805 | ATL8C5<br>642:1.<br>.924  | nap                        |     |  |  |  |  | ATL8C5<br>642:19<br>5..906       | 0.95 | g36881<br>76 | 56 | 293  |              | (AL031<br>804)<br>putative<br>protein<br>[Arabidopsis<br>thaliana]                        |
|        |               |                           |                            |     |  |  |  |  |                                  |      |              |    |      |              |   |
| 167866 | ATU029<br>806 | ATL8C2<br>695:1.<br>.1113 | nap                        |     |  |  |  |  | ATL8C2<br>695:12<br>..959        | 0.94 | g18711<br>76 | 56 | 264  | 7.6e-<br>12  | (U9043<br>9)<br>unknown<br>protein<br>[Arabidopsis<br>thaliana]                           |



|        |               |                            |     |  |  |  |                                  |      |                               |        |              |                              |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|-------------------------------|--------|--------------|------------------------------|--|
| 167867 | ATU029<br>807 | ATL8C3<br>1415:2<br>794..1 | nap |  |  |  | ATL8C3<br>1415:2<br>710..9<br>55 | 0.94 | g43357<br>21,<br>g43357<br>20 | 56, 36 | 394,<br>1530 | 1.2e-<br>29,<br>1.7e-<br>136 | (AC006<br>248)<br>putati<br>ve<br>zinc-<br>finger<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal;<br>(AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e Tal-<br>1<br>[Arabi<br>dopsis<br>thalia<br>nal] |
| 167868 | ATU029<br>808 | ATL8C1<br>8929:1<br>..1576 | nap |  |  |  | ATL8C1<br>8929:1<br>18..14<br>76 | 0.91 | g33778<br>16                  | 56     | 2252         | 8.2e-<br>192                 | (AF076<br>275)<br>contai<br>ns<br>simila<br>rity<br>to<br>Arabid<br>opsis<br>thalia<br>na<br>retrot<br>ranspo<br>son   |

|        |               |                            |     |  |  |  |  |                                  |      |              |    |     |             |   |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|---|
| 167869 | ATU029<br>809 | ATL8C6<br>22:657<br>..2050 | nap |  |  |  |  | ATL8C6<br>22:134<br>7..188<br>3  | 0.91 | g43888<br>25 | 56 | 933 | 8.2e-<br>91 | Athila<br>(GB:X8<br>1801)<br>[Arabi<br>dopsis<br>thalia<br>na]                |
| 167870 | ATU029<br>810 | ATL8C1<br>8424:1<br>..1300 | nap |  |  |  |  | ATL8C1<br>8424:2<br>27..13<br>00 | 0.90 | g32128<br>54 | 56 | 132 | 3.4e-<br>09 | (AC004<br>005)<br>unknown<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167871 | ATU029<br>811 | ATL8S4<br>606:1.<br>.483   | nap |  |  |  |  | ATL8S4<br>606:68<br>..466        | 0.90 | g31584<br>76 | 56 | 611 | 1.9e-<br>58 | (AF067<br>185)<br>aquapo  |

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 167872 | ATU029<br>812 | ATL8C7<br>653:1.<br>.930         | nap |  |  |  |  | ATL8C7<br>653:27<br>..930        | 0.89 | g11711<br>61 | 56 | 790  | 2.8e-<br>51  | rin 2<br>[Saman<br>ea<br>saman]<br>(U4147<br>2)<br>pectat<br>e<br>lyase<br>homolo<br>g<br>[Medic<br>ago<br>sativa<br>] |
| 167873 | ATU029<br>813 | ATL8C2<br>2958:3<br>07..13<br>89 | nap |  |  |  |  | ATL8C2<br>2958:6<br>12..10<br>18 | 0.89 | g16214<br>67 | 56 | 514  | 3.0e-<br>54  | (U7310<br>6)<br>laccas<br>e<br>[Lirio<br>dendro<br>n<br>tulipi<br>feral]   |
| 167874 | ATU029<br>814 | ATL8C9<br>908:1.<br>.1506        | nap |  |  |  |  | ATL8C9<br>908:28<br>8..144<br>7  | 0.88 | g40069<br>05 | 56 | 1441 | 7.2e-<br>116 | (Z9970<br>8)<br>ATPase<br>-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>nal]                                   |
| 167875 | ATU029<br>815 | ATL8C1<br>3091:1<br>..3434       | nap |  |  |  |  | ATL8C1<br>3091:1<br>98..34<br>34 | 0.87 | g23160<br>16 | 56 | 1638 | 2.2e-<br>129 | (U9265<br>0)<br>MRP-<br>like<br>ABC<br>transp  |

|        |               |                          |     |  |  |  |                           |      |          |    |      |          |   |
|--------|---------------|--------------------------|-----|--|--|--|---------------------------|------|----------|----|------|----------|---|
| 167876 | ATU029<br>816 | ATL8C3<br>6464:1..646    | nap |  |  |  | ATL8C3<br>6464:364..639   | 0.87 | g3413699 | 56 | 385  | 9.5e-39  | orter<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AC004<br>747)<br>putati<br>ve<br>heat<br>shock<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167877 | ATU029<br>817 | ATL8C1<br>424:797..5037  | nap |  |  |  | ATL8C1<br>424:797..4914   | 0.86 | g4388831 | 56 | 1940 | 1.3e-206 | (AC006<br>528)<br>putati<br>ve<br>mudrA<br>transp<br>osase<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]                                    |
| 167878 | ATU029<br>818 | ATL8C2<br>0841:136..2420 | nap |  |  |  | ATL8C2<br>0841:1420..2408 | 0.85 | g3738328 | 56 | 607  | 1.2e-47  | (AC005<br>170)<br>putati<br>ve<br>serine<br>carbox<br>ypepti<br>dase<br>[Arabi<br>dopsis  |

|        |               |                                   |     |  |  |  |                                   |      |              |    |     |             |   |
|--------|---------------|-----------------------------------|-----|--|--|--|-----------------------------------|------|--------------|----|-----|-------------|---|
| 167879 | ATU029<br>819 | ATL8C3<br>1249:1<br>176..5<br>64  | nap |  |  |  | ATL8C3<br>1249:1<br>068..5<br>64  | 0.84 | g45858<br>77 | 56 | 182 | 5.7e-<br>19 | thalia<br>na]<br>(AC005<br>850)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]               |
| 167880 | ATU029<br>820 | ATL8S1<br>4503:1<br>..686         | nap |  |  |  | ATL8S1<br>4503:1<br>20..68<br>6   | 0.84 | g77774<br>7  | 56 | 244 | 3.9e-<br>22 | (L4166<br>7)<br>ORF1<br>[Photo<br>bacter<br>ium<br>sp.]   |
| 167881 | ATU029<br>821 | ATL8C4<br>4687:2<br>246..3<br>176 | nap |  |  |  | ATL8C4<br>4687:2<br>467..3<br>058 | 0.83 | g29795<br>48 | 56 | 647 | 1.8e-<br>48 | (AC003<br>680)<br>putati<br>ve 7-<br>ethoxy<br>coumar<br>in O-<br>deethy<br>lase<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167882 | ATU029<br>822 | ATL8C1<br>5647:5<br>00..1         | nap |  |  |  | ATL8C1<br>5647:4<br>29..30        | 0.83 | g45586<br>67 | 56 | 207 | 5.3e-<br>24 | (AC007<br>063)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis   |





|        |               |                                 |     |  |  |  |  |  |      |              |    |      |              |  |
|--------|---------------|---------------------------------|-----|--|--|--|--|--|------|--------------|----|------|--------------|--|
| 167888 | ATU029<br>828 | ATL8C1<br>686:34<br>1..215<br>6 | nap |  |  |  |  |  | 0.80 | g48742<br>66 | 56 | 428  | 2.3e-<br>31  | (GB:<br>AC0023<br>41);<br>nearly<br>identi-<br>cal,<br>may be<br>the<br>same<br>protei-<br>n<br>[Arabi-<br>dopsis<br>thalia<br>na] |
| 167889 | ATU029<br>829 | ATL8C1<br>3587:1<br>492..1      | nap |  |  |  |  |  | 0.80 | g45390<br>04 | 56 | 1162 | 2.9e-<br>125 | (AC007<br>354)<br>T16B5.<br>4<br>[Arabi-<br>dopsis<br>thalia<br>na]  |
| 167890 | ATU029<br>830 | ATL8C3<br>5262:1<br>..1252      | nap |  |  |  |  |  | 0.79 | g45875<br>95 | 56 | 213  | 9.0e-<br>20  | (AL049<br>481)<br>putati-<br>ve<br>protei-<br>n<br>kinase<br>[Arabi-<br>dopsis<br>thalia<br>na]                                    |
|        |               |                                 |     |  |  |  |  |  |      |              |    |      |              | (AC006<br>951)<br>putati-<br>ve<br>prolin-<br>e-rich   |



|        |               |                            |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|----------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 167891 | ATU029<br>831 | ATL8S2<br>2998:4<br>70..1  | nap |  |  |  |  | ATL8S2<br>2998:3<br>95..32       | 0.78 | g4l071<br>50 | 56 | 81   | 1.4e-<br>05  | protei<br>n APG<br>[Arabi<br>dopsis<br>thalia<br>na]<br>(AJ006<br>983)<br>BbH3<br>homolo<br>g BpH3<br>[Borde<br>tella<br>bronch<br>isepti<br>cal] |
| 167892 | ATU029<br>832 | ATL8C4<br>7652:1<br>090..1 | nap |  |  |  |  | ATL8C4<br>7652:1<br>090..1<br>38 | 0.78 | g40469<br>0  | 56 | 381  | 6.0e-<br>35  | (L1907<br>5)<br>cytoch<br>rome<br>P450<br>[Catha<br>ranthu<br>s<br>roseus<br>]  |
| 167893 | ATU029<br>833 | ATL8C4<br>834:31<br>59..1  | nap |  |  |  |  | ATL8C4<br>834:31<br>28..58       | 0.78 | g45220<br>05 | 56 | 1959 | 1.6e-<br>193 | (AC007<br>069)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]                                       |
| 167894 | ATU029        | ATL8C2                     | nap |  |  |  |  | ATL8C2                           | 0.78 | g44067       | 56 | 1272 | 2.4e-        | (AC006  |

|        |                  |                                 |     |  |  |                                  |      |              |    |      |             |  |
|--------|------------------|---------------------------------|-----|--|--|----------------------------------|------|--------------|----|------|-------------|--|
| 834    | 3015:1<br>..1530 |                                 |     |  |  | 3015:1<br>94..11<br>21           | 83   |              |    |      | 137         | 532)<br>putati<br>ve<br>glutam<br>ate<br>decarb<br>oxylas<br>e<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167895 | ATU029<br>835    | ATL8C2<br>4495:1<br>157..1      | nap |  |  | ATL8C2<br>4495:1<br>049..1<br>85 | 0.77 | g43253<br>38 | 56 | 1359 | 3.2e-<br>91 | (AF128<br>392)<br>No<br>defini<br>tion<br>line<br>found<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167896 | ATU029<br>836    | ATL8S3<br>0338:1<br>14..55<br>6 | nap |  |  | ATL8S3<br>0338:5<br>12..42<br>1  | 0.76 | g73080<br>5  | 56 | 140  | 1.5e-<br>12 | ALKALI<br>NE<br>PHOSPH<br>ATASE<br>SYNTH<br>SIS<br>TRANSC<br>RIPTIO<br>NAL<br>REGULA<br>TORY<br>PROTEI<br>N SPHR<br>[Synec<br>hococc<br>us<br>sp.] |

|        |               |                            |     |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------|-----|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 167897 | ATU029<br>837 | ATL8C4<br>6857:1<br>..1169 | nap |  |  |  | ATL8C4<br>6857:9<br>15..73<br>7  | 0.76 | g31932<br>94 | 56 | 1066 | 8.6e-<br>110 | (AF069<br>298)<br>simila<br>r to<br>revers<br>e<br>transc<br>riptas<br>es<br>(Pfam:<br>rvt.hm<br>m,<br>score:<br>53.76)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167898 | ATU029<br>838 | ATL8C4<br>9516:1<br>..1233 | nap |  |  |  | ATL8C4<br>9516:1<br>10..10<br>84 | 0.76 | g42043<br>15 | 56 | 990  | 4.7e-<br>84  | (AC003<br>027)<br>Unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |
| 167899 | ATU029<br>839 | ATL8C4<br>9802:1<br>..1653 | nap |  |  |  | ATL8C4<br>9802:7<br>20..16<br>53 | 0.76 | g45809<br>90 | 56 | 433  | 1.4e-<br>49  | (AF120<br>335)<br>putati<br>ve<br>transp<br>osase<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167900 | ATU029<br>840 | ATL8C4<br>9984:1           | nap |  |  |  | ATL8C4<br>9984:1                 | 0.76 | g41917<br>92 | 56 | 212  | 9.1e-<br>24  | (AC005<br>917)   |

|        |               |                                  |     |  |  |  |  |                                   |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|-----------------------------------|------|--------------|----|------|--------------|--|
| 167901 | ATU029<br>841 | ATL8C2<br>7000:1<br>229..1       | nap |  |  |  |  | 368..3<br>89                      | 0.75 | g35496<br>72 | 56 | 571  | 4.3e-<br>27  | (AL031<br>394)<br>putati<br>ve<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167902 | ATU029<br>842 | ATL8C2<br>4553:6<br>90..1        | nap |  |  |  |  | ATL8C2<br>4553:6<br>45..43        | 0.75 | g44688<br>06 | 56 | 552  | 2.0e-<br>56  | (AL035<br>601)<br>cytoch<br>rome<br>P450<br>monoox<br>ygenas<br>e-like<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167903 | ATU029<br>843 | ATL8C1<br>7364:3<br>184..9<br>52 | nap |  |  |  |  | ATL8C1<br>7364:3<br>157..1<br>996 | 0.74 | g43357<br>20 | 56 | 1339 | 1.1e-<br>114 | (AC006<br>248)<br>putati<br>ve<br>revers<br>e<br>transc<br>riptas  |

|        |               |                                   |     |  |  |  |  |                                  |      |              |    |      |              |   |
|--------|---------------|-----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|---|
| 167904 | ATU029<br>844 | ATL8C4<br>0265:1<br>537...4<br>80 | nap |  |  |  |  | ATL8C4<br>0265:1<br>419..4<br>80 | 0.74 | g44067<br>96 | 56 | 800  | 1.4e-<br>58  | (AC006<br>304)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]    |
| 167905 | ATU029<br>845 | ATL8S3<br>0898:1<br>..584         | nap |  |  |  |  | ATL8S3<br>0898:1<br>00..51<br>6  | 0.74 | g11744<br>98 | 56 | 160  | 2.3e-<br>14  | SYNAPT<br>OBREVI<br>N-<br>RELATE<br>D<br>PROTEI<br>N<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167906 | ATU029<br>846 | ATL8C4<br>8800:1<br>..1497        | nap |  |  |  |  | ATL8C4<br>8800:9<br>..1336       | 0.74 | g39253<br>63 | 56 | 627  | 1.2e-<br>56  | (AF067<br>961)<br>homeod<br>omain<br>protei<br>n<br>[Malus<br>domest<br>ica]              |
| 167907 | ATU029<br>847 | ATL8C2<br>9097:1<br>018..1        | nap |  |  |  |  | ATL8C2<br>9097:9<br>29..17<br>1  | 0.73 | g36458<br>98 | 56 | 1489 | 9.0e-<br>132 | (U6840<br>8) in-<br>frame<br>stop   |



|        |                        |                            |     |  |  |                                  |      |              |    |      |              |   |  |
|--------|------------------------|----------------------------|-----|--|--|----------------------------------|------|--------------|----|------|--------------|---|--|
| 850    | 6761:1<br>240..3<br>01 |                            |     |  |  | 6761:1<br>240..9<br>67           | 99   |              |    |      |              | 17  | 018)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167911 | ATU029<br>851          | ATL8C4<br>85:3..<br>1503   | nap |  |  | ATL8C4<br>85:68.<br>.1468        | 0.72 | 944163<br>01 | 56 | 1904 | 4.8e-<br>168 | (AF105<br>716)<br>gag<br>protei<br>n<br>[Zea<br>mays]   |  |
| 167912 | ATU029<br>852          | ATL8C3<br>933:1.<br>.590   | nap |  |  | ATL8C3<br>933:59<br>..590        | 0.72 | 930045<br>49 | 56 | 264  | 2.0e-<br>24  | (AC003<br>673).<br>unknow<br>n<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]  |  |
| 167913 | ATU029<br>853          | ATL8C1<br>3296:1<br>672..1 | nap |  |  | ATL8C1<br>3296:1<br>543..4<br>10 | 0.71 | 944173<br>09 | 56 | 1318 | 4.8e-<br>133 | (AC006<br>446)<br>putati<br>ve pol<br>polypr<br>otein<br>with a<br>revers<br>e<br>transc<br>riptas<br>e<br>domain<br>[Arabi |  |

[illegible]

|        |               |                                  |     |  |  |  |  |                                  |      |              |    |     |             |  |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|-----|-------------|--|--|
| 167914 | ATU029<br>854 | ATL8C4<br>3785:1<br>..1294       | nap |  |  |  |  | ATL8C4<br>3785:9<br>7..120<br>9  | 0.69 | g48951<br>73 | 56 | 637 |             |  | dopsis<br>thalia<br>na]  |
| 167915 | ATU029<br>855 | ATL8C4<br>827:33<br>89..20<br>35 | nap |  |  |  |  | ATL8C4<br>827:32<br>37..20<br>66 | 0.69 | g41730<br>5  | 56 | 403 | 7.6e-<br>26 |  | (AC007<br>662)<br>hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167916 | ATU029<br>856 | ATL8C4<br>2414:1<br>334..1       | nap |  |  |  |  | ATL8C4<br>2414:1<br>307..4<br>0  | 0.68 | g33778<br>45 | 56 | 560 | 5.4e-<br>45 |  | MANNOS<br>YL-<br>OLIGOS<br>ACCHAR<br>IDE<br>ALPHA-<br>1,2-<br>MANNOS<br>IDASE<br>(MAN(9<br>)-<br>ALPHA-<br>MANNOS<br>IDASE)<br>[Sacch<br>aromyc<br>es<br>cerevi<br>siae] |



|        |               |                                  |     |  |  |  |  |                                  |      |              |    |      |              |  |
|--------|---------------|----------------------------------|-----|--|--|--|--|----------------------------------|------|--------------|----|------|--------------|--|
| 167917 | ATU029<br>857 | ATL8C4<br>7990:2<br>416..5<br>35 | nap |  |  |  |  | ATL8C4<br>7990:2<br>187..5<br>51 | 0.67 | g22889<br>97 | 56 | 1384 | 4.7e-<br>115 | region<br>plus<br>leucin<br>e<br>zipper<br>trancr<br>iption<br>factor<br>s<br>(Pfam:<br>bZIP.h<br>mm,<br>score:<br>12.77)<br>[Arabi<br>dopsis<br>thalia<br>na] |
| 167918 | ATU029<br>858 | ATL8C2<br>898:27<br>2..135<br>2  | nap |  |  |  |  | ATL8C2<br>898:27<br>2..130<br>5  | 0.67 | g24438<br>92 | 56 | 500  | 2.6e-<br>53  | (AC002<br>294)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |
| 167919 | ATU029<br>859 | ATL8C3<br>2621:1                 | nap |  |  |  |  | ATL8C3<br>2621:1                 | 0.67 | g47536<br>58 | 56 | 778  | 1.5e-<br>77  | (AL049<br>751)<br>Hypoth<br>etical<br>protei<br>n<br>[Arabi<br>dopsis<br>thalia<br>na]   |

